

Barbados Diary

"Miss, the phnne went you" is not a bad example of Barbadian dialect. Although there is no foreign sounding 'parols or creole to master, when it is spoken rapidly it becomes difficult to follow.

In a village store cum rum shop a woman was talking of machine-guns and the only word I could make out was "dispatch". I later learnt that this meant to serve a customer, not to send a parcel or someone to the next world.

I was trying to understand this conversation with two teachers from E. P. Collier primary school, Reading, who had taken a party of 15 children on an exchange visit to Wilkie Cumberbatch School on the outskirts of the Barbadian capital, Bridgetown.

Barbados has been under British rule since 1627 so, apart from some African influence on the language stemming from the slave trade, it is basically English.

Moreover, it is strongly laced with West-country and Irish lilt because many early settlers were transported in the aftermath of the "Bloody Assizes" and the Battle of the Boyne—so many that "to Barbados" came to mean transportation.

Lickmouth lingo

To steal the words of a character called "Lickmouth Lou" who writes a dialect column in one of the papers, *The Nation* (Lickmouth being a disparaging of English) "Duh say 25 per cent of de cane, dat 'harvest' gone 'rough' 'de eadders because of 'frees, an' 'de people wun hear a-bell a-bell, so 'ah is why dis new law get introduced," gives some idea of these influences.

"Lickmouth" Lou was referring to a howl which signifies the burning of sugar cane, 25 per cent of the harvest was lost this year partly because of incursions by the "trash" the outcasts of the cane, which makes it easier to cut. Unfortunately, this also cuts down the sucrose content of the cane and makes it less profitable.

"To go through the 'cane' is, according to Lou, 'collywally' and a reference to the cane cutters by the Barbados National Trust, is a quaint phrase signifying that all is over, there's an end of the matter.

Even Mr. Erskine Rawlins, the chief education officer, is not above using one of the more useful dialect words in the right context. As a reference to the cane cutters, he said, "the young of adopting a 'don't care' attitude towards cane burning."

Sugar looms large in Barbadian life, although it has now been overtaken by tourism as the biggest money earner. It is hard to avoid in food and even the lovely naturally sweet juices made from passion fruit or mangoes are heavily laced with it, provoking the thought that anyone taking the sea in the tropics suffers the same fate as the politician's daughter who refused to drink coffee in Brazil.

This cricket is the all-absorbing passion. On Saturday afternoon every available reasonable flat surface is filled with white-clad figures: Sunlight morning on the heath—driftwood stumps are erected, fieldsmen are placed in the sea if necessary—and bowlers in quick succession fire naves at the batsman. Unhappily with a rubber ball, fluddies around, transmission radius at street corners, in various markets or bars usually mean that the West Indians is playing somewhere it is a shock to hear the round tones of Brian Johnston float across the air waves in a busy Bridgetown street.



An E. P. Collier pupil concentrates on arithmetic with a little help from friends of Wilkie Cumberbatch.



If it's Monday, it must be macaroni

The island is suffering a population explosion. In direct contrast to England, every school is bulging and most have extensions built on every year.

The Government is committed to a policy of co-education although one or two of the very old "older secondaries" which were grammar schools are resisting this. Most of the "newer secondaries" which are more like our secondary

moderns of the 1960s are co-educational. Eventually, the Government hopes to do away with the selection system at present operating rather on the lines of our old 11-plus. But they are loathe to throw away what Mr. Erskine Rawlins calls the bits of excellence we have, along with the bad.

Louis Tull, the education minister in Mr. Tom Adams's Bar-

bados Labour Party Government, is about to change the system in a new Education Act; but he is approaching the change with caution. He has visited the heads of the 21 government secondary schools to elc down with him and work out solutions to the problems.

Anyone who went to an old-fashioned grammar school in England 20 years ago would feel at home in many old Barbadian schools. The uniforms, the formality, the syllabus are all familiar.

Stodge for slaves

However, in the new secondaries, the pace is brisker and according to a teacher from an East London school on an exchange in the north of the island, the disciplinary problems are similar to those she encounters back home.

School meals too remind you of home. They are free for primary children but secondary pupils have to buy snacks and drinks at subsidised prices.

At Wilkie Cumberbatch, dinner ladies in white coats and hats dispensed huge portions of stodgy mixtures in the stifling heat. Macaroni, cheese, peas and spaghetti, according to the head, Mrs. Mildred Payne, the most unpopular menu of all—rice mashed with split peas and salt cod stew. We did not like it, neither did the Barbadians. I later learnt that that was the kind of meal they fed to the slaves.

The fashion for acquiring school mini buses has gone one stage further in Barbados with one school in the isolated northern end of the

Island attempting to raise funds for a full-size coach.

St. Lucy's Secondary, an 11-13 strong mixed school, is hoping to raise 35,000 Barbadian dollars, £8,800 for the coach to take sportsmen and women to matches. Valuable lesson time is being lost as pupils have to travel on public transport.

The school made a gallant attempt two weeks ago to raise the bulk of the money by organizing a "bazaar" around the island. Teams of nine boys and one girl milled round the island perimeter—67 miles—starting at 6.15 am on a Sunday morning finishing by 3 pm.

Best steel band

They were spurred on by the steel band—the best I ever heard playing from the back of a truck at every change over and managed to collect another \$12,000 towards the bus.

Secondary education is now free on the island except for a nominal five dollar charge for textbooks each year. It is not compulsory either. Yet nearly every child enters school up to the official leaving age of 16. Mr. Daryl Jordan, head of St. Lucy's, claims a 91 per cent attendance rate. There is no new legislation, he said.

John Shearman, the head teacher of E. P. Collier primary school, believes the exchange to be the best scheme of its kind attempted in England—certainly with such small children. (They were mainly aged between 10 and 12.) He hopes the children will learn important cultural lessons from the trip: the adults certainly did.

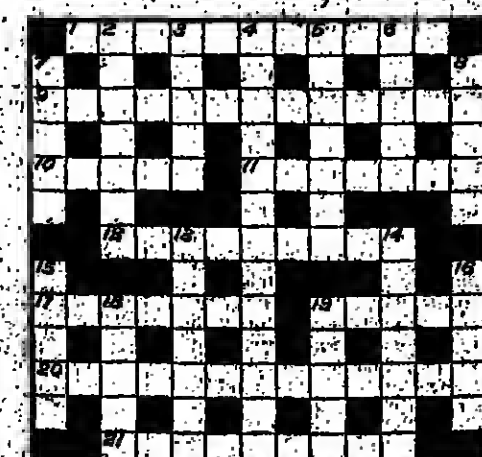
It is obviously too early to say what the children got from it. Asked "What did you learn about Barbados?" four days after the return, one of the party replied "It's small, it's hot and it's made of coral".

Diane Spencer

Next week

What sort of English should we have at 16? Mr. Raleigh says it is time for a fashionable syllabus and method to disappear. Starting from scratch, interview with Daniel Mannix, Zimbabwe's Education Minister. Pressure groups: Rick Reed, the family lobby. James Cameron, reviewer of Toffler's new futuristic book *The Third Wave*. John Spence, a new study of Stephen Crane. Alhamsi on Alberto Moravia. The Virago edition of short stories by Grace Paley. Extra: Extra-jurisdictional Studies (postponed from June 27).

Crossword No 1, 193



Across

- Obviously not ripe for the mill (5, 6)
- Latin left by flood (4)
- It is no fun could never become a for king (5)
- No guarantee (4)
- They secure a domestic income (5, 4)
- Informative way to blow the top (4)
- Describes dogs that have a moon officially with a black moon (5)
- At average "Greenwich" speed? (2, 2)
- It is object is one's betterment (9)
- Down
- Partnership for a married pair (10, 4)
- King makes an edict (5)
- Russian royal ship

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Pay rise will cost jobs say managers

by Richard Garner

Widespread redundancies and severe cuts to services will have to be introduced if teachers win a higher pay rise from arbitration than their 1980/81 pay claim, according to confidential evidence being submitted by the local authority management panel to next Tuesday's hearing.

In its evidence the management panel says that a pay award above the 11 per cent on offer would "price teachers out of the schools". Both sides are due to present their cases to the three-strong arbitration panel on Tuesday. At present the teachers have been offered a pay increase of 9.3 per cent on top of the original Clegg arbitration report which would have seen the management pay the average salary of a teacher would rise to £6,926 by September and cost the authorities £286 million.

The teachers are claiming 21.2 per cent—the equivalent of the rise in the cost of living index between April 1979 and 1980.

In its evidence, the management panel urges the arbitrators to give a clear ruling on the implications of Professor Clegg's admitted 4 per cent error in giving teachers rises of between 17 and 25 per cent, "Should the erroneous figure not be replaced as the 'Clegg base' for future correct ones, pay bargaining in future years could compound the already large error into one that would each year be financially inacceptable and potentially contentious."

By the 1980-81 negotiations, having assumed that the Clegg rises would have been negotiated to the lower figure, it goes on to say, "The authorities that budgeted in line with the support grant assumption would have been faced with the need to pay 8.5 per cent to 5.5 per cent less than they had budgeted with the savings in manpower or by cuts in other expenditure."

At 13 per cent very few could escape severe problems, while the lower figure, especially if it is 10 per cent, would be a disaster. The other major factor due to the rise in the cost of living, while the cost of living rose 16 per cent in 1980, teachers' wages rose 13 per cent.

The submission adds: "Rooke equipment allowance can be no more and not expenditure on school meals, school transport, building maintenance, equally have been cut in an effort to compensate upon the priority of playing teachers in the schools. They should be so illustrious that they pay award will price teachers out of the schools."

The management's contention that the present pay offer will lead to widespread redundancies is "a grossly exaggerated claim", it says, who will point out that the "error" was admitted in the report: the management was prepared to offer 13 per cent, but the original report's recommendation was 11 per cent.

In a separate letter to the arbitration panel, the chief executive secretary of the National Association of Schoolmasters' Union of Women Teachers, said that the management had "not withdrawn the original offer" and that the "original offer" should be maintained. The union's 21.2 per cent demand, as set out in a special meeting in Suffolk, is "a special pleading" and "a grossly exaggerated claim".



After 70 million years of evolution two chimpanzees find themselves in a former cinema in King's Cross, north London, at the opening of the world's first "Primatearium": an audio visual show complete with rain and a 40 foot waterfall which is entertaining and educational on the life of endangered species of monkeys and apes. Shows last 35 minutes and are on the hour from 11 to 7 Monday to Saturday. Adults £1.80, children 95p, 10 per cent reduction for large parties. Profits go to the International Primate Protection League.

Axe looms over sixth forms as rolls continue to fall

The traditional school sixth form is in danger of extinction in some parts of the country because of falling pupil numbers. The boldest move so far is revealed in a plan by Manchester to end 16 to 18 schooling and go over to tertiary colleges. Sarah Bayliss

Tertiary system for 16-19s planned

Sixth form in Manchester schools should be abolished and replaced with three or four tertiary colleges for 16 to 19-year-olds, according to Mr. Dudley Fiske, the chief education officer.

Manchester would become the first big city to adopt the tertiary college model as an answer to falling pupil numbers, if the council approve his plan. The plan would involve the merging of 11-18 existing schools for councillors to look at.

"I regret that the schools which have created good strong sixth forms are likely to be our leading opponents. But I am not prepared to let the entire secondary system run into the sands which are certainly there without a clear attempt to show an alternative way forward," he said.

Mr. Gordon Gange, chairman of the education committee said his group had not decided its policy yet but members wanted a citywide system rather than changes to some schools and not to others. "The evidence is strongly in favour of a break at 16. We cannot afford to do nothing because some schools will just decay and lose all their sixth forms," he said.

The thrust of the argument against the tertiary plan is that younger pupils will suffer from a lack of academic and professional teachers who might be attracted away to the colleges.

The teachers' organisations, which meet Mr. Fiske for discussion next Tuesday, have said they want to see a unified system but are by no means committed to tertiary.

In his report to the policy and estimates sub-committee of the education committee last Wednesday, Mr. Fiske says it is "theoretically possible" to keep the 11-18 school as the basic educational unit but there are "almost certainly too many disadvantages". He has prepared three draft plans for merging and closing 11-18 existing schools for councillors to look at.

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School to work

More than half of those leaving school may be going straight on to the register. Politicians are starting to suggest that it is partly their own fault—and that of the unions...

Expanded YOP barely able to cope

The Manpower Services Commission may be faced with up to 400,000 unemployed leavers soon, on the assumption of an average of 300,000 leavers without jobs over the coming quarter. It also means that the commission is expecting up to 250,000 leavers still to be unemployed after the annual peak of recruitment in September.

The commission is almost certain to ask

the Government to provide the resources for an emergency expansion of the Youth Opportunities Programme to handle the leavers who would have no job by the spring. It is feared that they may exceed leavers who would have no job by the end of the date of about 170,000.

Officials are working out the details of the case for the programme's expansion, in present to the commissioners after

their summer break. Although ministers are usually warned well ahead of the MSC officials' intentions, a Government spokesman gave no indication in last week's employment debate that they knew of any need to expand the programme. Instead, they referred to the expansion already carried out this year, which will now barely cope with the existing level of unemployment.

Why employers shun young workers...

by Mark Jackson

Unemployment among youngsters is often directly traceable to the high rates that employers are expected to pay them, Sir Keith Joseph, the Industry Secretary, alleged this week.

In a radio interview on Sunday he accused the unions of demanding high output rates for young and inexperienced workers, and suggested that people could price themselves into jobs by offering to take lower wages. The Industry Secretary's musings attracted the predictable scorn from union leaders, who appeared to have overlooked a statement with the same drift a few days earlier from a former Labour Minister.

In last week's otherwise fiercely polemical Commons debate on employment, Mr John Gilling, the minister responsible for youth employment, in the last Government, made a speech which earned him more praise from young members than from his own side.

Mr Gilling alleged that one of the reasons for employers' discrimination against the young was that differential between them and adults had been squeezed. "There has been a change in the work structure, contrary to the interests of young people as far as employment is concerned," he said. Mr Gilling claimed that adult workers were resisting the employment of youngsters, because they feared that youngsters would adversely affect their production, because either by "working around" or because they did not have the strength to do their full share.

The fact that 16 and 17-year-olds were not allowed to do shift work, which was growing in the industry, was also restricting their employment.

Mr Gilling appealed for a detailed consideration of these problems "rather than ascribing every aspect of youth unemployment to political causes". He said: "The problem of youth employment cannot be explained away by a Tweedledum-Tweedledee attitude by which the parties call each other names. Behind that there exists a genuine problem in this country, as in others, which goes beyond party politics."

He told the house that unemployment was now spreading beyond the "rough and tumble" to brighter youngsters with "O" levels, partly because of staff cuts in local government and the civil service as well as in office generally, and

because of a reduction in apprentice recruitment. If the Government did not act quickly they would be grabbing at jobs below their own level and squeezing out the less able. He called for an expansion of the Youth Opportunities Programme, and an extension of the time youngsters could stay in it so that they would not be forced out on to the street.

A former Tory Cabinet minister, Mr Geoffrey Rippon, said that Mr Gilling had struck the right note in appealing for united action by employers, unions and the Government. And Mr W. R. Rees Davis, the Tory member for Tinsley, joining in the praise, said that Mr Gilling was right to say that part of the trouble was that 16 and 17-year-olds were being paid too much. He suggested some form of conscription into work of community service—a proposal already put forward by Mr Rippon in his speech.

But other speakers did not take kindly to the demands for a bipartite approach. Mr Bruce Millan, the former Labour Scottish Secretary who had moved the debate, accused the Government of deliberately creating unemployment as part of its attempt to reduce inflation out of the economy. He acknowledged that unemployment had increased substantially under the Labour Government, but said that it had started to decline until the present Government's policies. And, suggesting that on both sides of the House they had been too complacent in recent years about the effects of unemployment on the individual, he warned: "There is now a feeling of bitterness and despair among many of the unemployed, particularly the young, which is disastrous for the social health of this country."

Mr Millan said that the Manpower Services Commission's latest review showed that the Youth Opportunities Programme was "due to be cut back after this year as a result of its reduced budget, and asked for a pledge that it would be expanded instead to meet the increase in unemployment. Mr George Younger, the Scottish Secretary, who replied to the motion for the Government, did not satisfy Mr Millan when he answered that the Government had already made increased provision for YOP this year. Pressed for a binding commitment to future expansion, Mr Younger said that the Government's action this year could be taken "as an earnest of our intention to maintain standards in this sphere."

Mr James Prior, the Employment Minister in the past for the continuing committee on employment to join in at the Government would certainly ensure that any new scheme would fulfil the pledges which had been given in the past for the continuing of YOP. There was no question of the Government's not being able to fulfil its pledges, he repeated. The Government would be offering a place if they were still unemployed by next Easter.

The opposition motion calling for urgent action to reverse the rise in unemployment was defeated by 320 votes to 257.



Peter Manning had expected to leave school this August for the date quota. Instead, he has begun training as a postal cadet at the giant Michael Keating (left) are among the first batch of leavers recruited under the new cadetship scheme. The programme will introduce them to basic postman jobs, and give them a taste of some expert jobs for which they can qualify when they become adult postmen or 18, such as set a change to learn to drive post office vans once they are over the minimum driving age. Peter, who will return briefly to Lister school from his career after being turned down for both a police cadetship and a job in a furniture shop. Michael was advised of the scheme by his grandfather and grandmother, both of whom had worked for the post office. He is particularly attracted by the sport facilities that the post office provides for its staff.

... But helping leavers may be risky

Post Office chiefs are highly embarrassed at the brazen which its new scheme to recruit school leavers has shown. They are trying to make it clear that the plan is not aimed at relieving youth unemployment.

Post offices are already receiving a flood of inquiries from leavers eager to join the postal cadetship scheme, announced last week, under which 5,000 16 to 17-year-olds will be recruited every two years. The youngsters will, after initial training, sort and deliver letters like adult postmen and postwomen. Previously, under-16s have been taken on, in comparatively small numbers, only for messenger duties—the boys mainly the telegram deliveries and the 1,700 existing messengers have already been redeployed to other areas, which leaves only 3,300 jobs for the first batch of leaver recruitment.

Mr Jim Anderson, head of the division responsible for recruitment, says: "We are doing this for our own good business reasons. We shall judge its success, not by the number of youngsters who keep off the dole, but by the proportion who stay on and make postal work their lifelong career."

But the Union of Communication Workers who say that it was they

NEWS

Big gulf in pupil cost

Some children in state schools have only half as much spent on their education as others, according to figures published this week.

Wide discrepancies in the cost per pupil of education in England and Wales are revealed in the annual report of local education authorities spending produced by the Chartered Institute of Public Finance and Accountancy.

Bottom of the education spending league table, according to the figures, is Dudley in the West Midlands with a net cost of £385 per pupil, while the Isles of Scilly, which does have far fewer pupils than other authorities, spends £788 per child. The figures cover January 1978 to January 1979, the latest statistics available.

Other low spenders include Bolton and Oldham at £406, Kirkby at £407 and Stockport at £408. The high spenders include the Inner London Education Authority with £704 per child and Brent with £592.

The statistics also show similar variations in the pupil/teacher ratios of the 104 authorities with Brent and ILEA, perhaps not surprisingly, coming out amongst the best with 15.1 and 15.3 respectively. The Isles of Scilly has a ratio of 13.3. Only two authorities have a pupil/teacher ratio of over 21—Stockport with 21.1 and Dudley with 21.0.

The figures also show that the number of schools decreased by 634 during the year (606 nursery, primary and middle-deemed primary schools and 28 secondary and middle-deemed secondary schools) to take account of falling rolls. The total number of teachers employed increased from 464,978 in 1977 to 470,515 in 1978—an increase of 1.2 per cent.

Plan to recruit from Canada

The Inner London Education Authority is considering recruiting teachers from Canada to ease the chronic shortage of mathematics and science teachers.

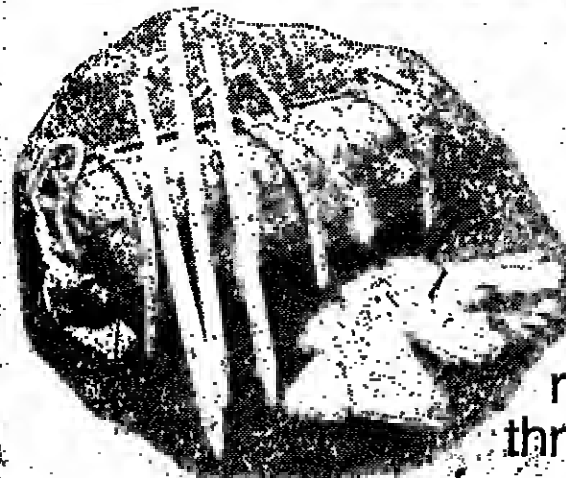
At present there are 40 outstanding vacancies for mathematics and science teachers in inner London secondary schools.

A spokesman said: "Because of the continuing chronic shortage we have been making strenuous efforts to recruit nationally and we have retraining schemes for our own teachers. But these are not working as well as we would like. There is a feeling that it might be possible to get a few Canadian teachers over here to teach shortage subjects."

"We are exploring the possibility of coming to some arrangement for secondment, which would not be for an indefinite period but would not be for a very short period either. Plans are presently being devised by the ILEA are that the Canadian teachers should be paid by the ILEA but remain on the books of their authorities in Canada. Discussions are already taking place between the ILEA and the Home Office and Department of Employment."

Next term

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Spain

Move to end study fees for bright and poor

James Connall looks at the passage of the Bill aimed at controlling the intake and running of the universities

Under the new Bill regulating the running and administration of Spain's universities the very bright and very poor will be exempted from paying fees. The Bill at present on its way through parliament will allow high percentage students free tuition and extended to students from low income groups.

The Government is appalled by the fact that the universities are already overloaded by thousands of students who should never have been allowed to get there in the first place. Overstretched medical faculties have to cater for double the number of students as present studying medicine in the United States, for example.

A halfhearted attempt to control university intakes was watered down by political party protests

and the present democratic euphoria implies that every potential student, however indifferent, has a right to a university place. One of the major problems is that nobody seems to know the exact cost of keeping a student at university. The Education Ministry has undertaken a comprehensive cost analysis but no conclusions have been reached so far. The first tentative measure to be taken is to weed out the eternal student, those who fail year after year or who are allowed to go on dragging part-time subject failures. This time-honoured system is encouraged by the four normal exam

sittings and the two extraordinary examinations a student is allowed to pass any given subject. The government's plan is to price them out of universities. Academic lagards will be forced to pay higher fees on a sharply ascending scale.

A wary attempt will be made to improve the academic discipline where few or no attendance records are kept and an absenteeism rate of 30 per cent or more is normal. The first year drop-out rate often runs to 50 per cent and a considerable number of students take their degree in double the normal time. According to a recent Ministry

survey only 8 per cent of higher education students come from economically depressed classes. In view of this meagre percentage the Ministry has promised to fall over backwards to offer incentives to the poorer students. Until now all higher education students have enjoyed indirect subsidies through tuition fees which are abnormally low in comparison with those of other European universities.

Even these were waived in the case of students from big families (four or more). Despite litter protests the Government is determined to pass on the real costs to the students and make the universities

break even by raising fees to realistic levels.

To soften the blow the state award 43 per cent more scholars means less than last year on a domestic requirement. Meanwhile the economics professor at San Sebastian University recently revealed findings of his own cost study of Spanish universities which had been tacitly accepted by the administration.

According to Professor Ochoa's figures are based on charges, the average national building and depreciation costs at a university place exceed the number of students receiving grants at higher education centres only 400 students at the cost rise of £748 and at the other end of the scale a high density centre with 1,251.

South Africa

Permits demand for black schools

by John Kane-Berman

JOHANNESBURG

A new crisis is arising in South Africa's troubled education system. Hundreds of teachers in black African schools in Soweto and other townships in the so-called "white" areas of the country are facing a nasty dilemma.

They are being told to apply for "work permits" or lose their jobs in already seriously understaffed schools. But applying for such permits carries for them the unacceptable implication of accepting a cardinal aspect of apartheid policy which is to reduce all black Africans to the status of foreigners in South Africa.

The work permit instruction, which has come as a nasty shock, was contained in a circular from the department in charge of black education to all circuit inspectors and school principals in the Johannesburg area (which includes Soweto).

Telling them that all teachers who were "citizens of independent countries" should obtain work permits by the middle of August or risk their services being terminated.

One of the township's best-known former boardmasters, Mr. Willie Kambula, commented: "Why should they do this when there is such an alarming teacher shortage. It will lead to confrontation."

Under the government's policy of making all the rural Bantustan "homelands" constitutionally independent states, all black Africans in South Africa who are officially regarded as having historical, cultural, family or ethnic links with their "homelands" automatically lose their South African citizenship on the date of independence and become citizens of the "homeland".



Some students caught up in further test of apartheid.

instead. They have no choice in the matter, nor does it make any difference if they were actually born in one of the "homelands" or indeed if they have ever been there. The rationale for this policy is that once all blacks have been moved into Bantustans in South Africa, the better pretence on which to continue denying them the vote.

So far, three "homelands"—the Transkei, Bophuthatswana and Venda—have become independent. This means that all black teachers in Johannesburg who supposedly have links with these areas are now citizens thereof and no longer South African citizens. So they must apply for work permits.

The instruction is likely to cause deep anger among both teachers and their pupils. The great majority of black people in the urban areas are bitterly resentful of the Bantustan homeland system, not least because it denies them the right of citizenship and reduces their security of tenure in the towns.

Prominent blacks like Dr. Nkomo, leader of the "black consciousness" movement, have even refused to accept the "homeland" status and are now regarded as "foreigners" and denied full recognition or losing their jobs and prejudicing their pupils' education.

Australia

Knighthoods for academics

by Bill Purvis

SYDNEY

Two leading Australian academics were knighted in the Queen's Birthday Honours.

They are Professor Bruce Williams, vice-chancellor of Sydney University since 1967 and Professor Joseph Burke, professor of fine arts at Melbourne University from 1947 to 1978 when he retired.

Sir Bruce, 61, a graduate of Adelaide and Manchester universities, was a professor of economics at Keble and Manchester between 1950 and 1967. He was chairman of the committee which last year produced the Williams report into education and training in Australia to the year 2000.

Sir Joseph, 67, was born in England and from 1945 to 1946 was a private secretary to Britain's Prime Minister, Mr. Clement Attlee.

West Germany

Building programme back

by David Dungworth

West Germany's main advisory body on higher education, the Wissenschaftsrat, is supporting the Youth University Building Programme which provides for an increase in college places from the present 730,000 to 850,000 by 1984.

But the expansion will only go ahead if the number of university places is reduced to relieve overcrowding. Figures published by the Federal Office of Statistics show that last winter term 382,000 students were actually enrolled at West German universities and colleges.

The annual rise in applications for study places has levelled off since 1975, but the student population is likely to continue to increase until 1985 as a result of the high birth rate years of the early 1960s.

The situation would have been even more serious had there not been a steady decline in the proportion of young people wishing to take up higher education since 1972. Last year 23 per cent of 19

Soviet Union

Profession's prestige at new low

by Jennifer Louis

MOSCOW

Teacher prestige is on the decline in the Soviet Union. Competition for entrance to teacher training institutions is among the lowest of that for any profession and surveys show that the brightest children plan to go into research, or indeed into any other field rather than that of teaching.

The Soviet government newspaper *Pravda* is especially concerned about the staff shortage in village schools. They point out that village teachers have a difficult job and their hard life does little to enhance the status of the profession.

A group of teachers from Kalinin region complain that they cannot buy the books they need, referring to the constant shortage of popular books in the shops and to the limited subscriptions to literary supplements.

A young teacher from the same region described in a letter to the editor of *Izvestia* how she was put in charge of an "extended day" class. (Instead of going home for dinner after lessons, these children stay at school and after evening lessons have time for supervised homework.)

Her 35 children had no classroom allocated to them. "Just imagine," she writes, "I wandered the length of the school building followed by my hatted chaperons only to be turned away from every empty room we tried to enter. There is too much breakable glass in the chemistry laboratory, we were told. The equipment in the physics laboratory is very expensive and nobody is to go into the gym without changing their shoes. What kind of authority can I maintain when my pupils want me to be constantly searching for a quiet corner to call for my own?"

Many village teachers complain they have to clear the snow away from the school and school entrances and the buildings are often literally buried.

These acute local authorities and the managing-committees of the collective farms are legally bound to supply teachers with fuel for the winter, but a group of teachers from the Ukraine wrote that they had been given money instead.

A necessary commodity and the going with which to purchase it was far from being one and the same thing in the Soviet Union. One is obliged to buy wood at a high price, but if one does not let alone old, broken stoves they are not on open sale but distributed.

These teachers had to make their way to the railway station, to beg for a coal or peat.

Mr. Mikhail Nosenko has been working in his village school in the Khabarovsk region for more than 10 years, but that made no difference to the director of the local state farm: "I was a good 12 months before he found time to deal with the teacher's burning plea."

Yet another group of teachers complained that they were being asked to bring in their share of potatoes to the winter from farmyard fields. Besides, fuel, food is also often in short supply in the country and a good salary is no substitute.

In spite of all the rural and village teachers would be foolishly expected to grow their own potatoes and vegetables and to keep a couple of pigs. But apart from being a waste of time, this robs them of their dignity, they feel.

When the children, as their village teacher, who only yesterday complained to them the beauty of poetry, smeared with mud and mud, they are hardly going to be filled with renewed respect.

It is not so long for his control to be put right. Why did I ever marry a teacher? I have wasted these 35 years of my life together. There are many here and because of the lack of the very society they

India

Staff unrest fear in private schools

by A. S. Abraham

BOMBAY

The indefinite closure by the management of four leading private schools in Calcutta recently has created misgivings that the Marxist government of West Bengal state, of which Calcutta is the capital, is deliberately fostering staff unrest in private schools to justify taking them over and giving pupils a Marxist-biased education.

The Vidya Mandir Society, which runs the four schools, fears that what was done to another private educational institution soon after the Communist Party of India (Marxist) won office in West Bengal in 1977 will be done to its schools as well.

Two years ago, after prolonged turmoil, allegedly started and sustained by Communist Party supporters, this institution, run by the Birlas, India's biggest industrial group, was taken over by the Marxist government and has since been directly administered by it. In the present case, non-teaching

Class IV employees (subordinate staff) went on strike in the four schools in March, the eve of important science practical examinations organized by the state secondary school board.

While the management was able to go through with the examinations, the situation worsened until students and teachers were prevented from entering school premises. There have been daily complaints of harassment and a principal, and the society's secretary are reported by the management to have been man-handled.

The society won a court order prohibiting pickets from coming within 100 metres of the schools. But the police, under the control of the provincial home minister who is a member of the Communist Party are said to have turned a blind eye to violations of the court order.

The management has also complained that members of the Centre at Indian Trade Unions (the Communist wing) are camping near the school and directing the strikers, and that nothing is being done to remove them.

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Less cheese fewer mice

...and the other is the fact that the system is not yet fully operational. The system is still in the process of being developed and is not yet ready for use. The system is still in the process of being developed and is not yet ready for use.

Science diary

Two 'quasars' may confirm Einstein's theory Seeing double and seeing red

by John Maddox

Less than a year after the centenary of Einstein's birth, a quite unexpected confirmation of his General Theory of Relativity is claimed by a group of American astronomers.

This is what has happened. About a year ago, a group of astronomers at the University of Arizona, working at the Steward Observatory near Tucson, reported the discovery of what they called a double quasar. The quasar was in the work of the late J. Weymann, and the first observation was merely that there appeared to be a pair of very similar quasars in the sky separated from each other by a mere six minutes of arc—this is roughly the angle subtended by a 10p piece at a distance of 50ft.

During the past year, people have been energetically trying to discover what to make of this observation. Quasars are, of course, among the most peculiar objects in the sky. They were first recognized by the radioastronomers as powerful sources of radio waves which later turned out to be centred on faint star-like objects visible with the most powerful optical telescopes.

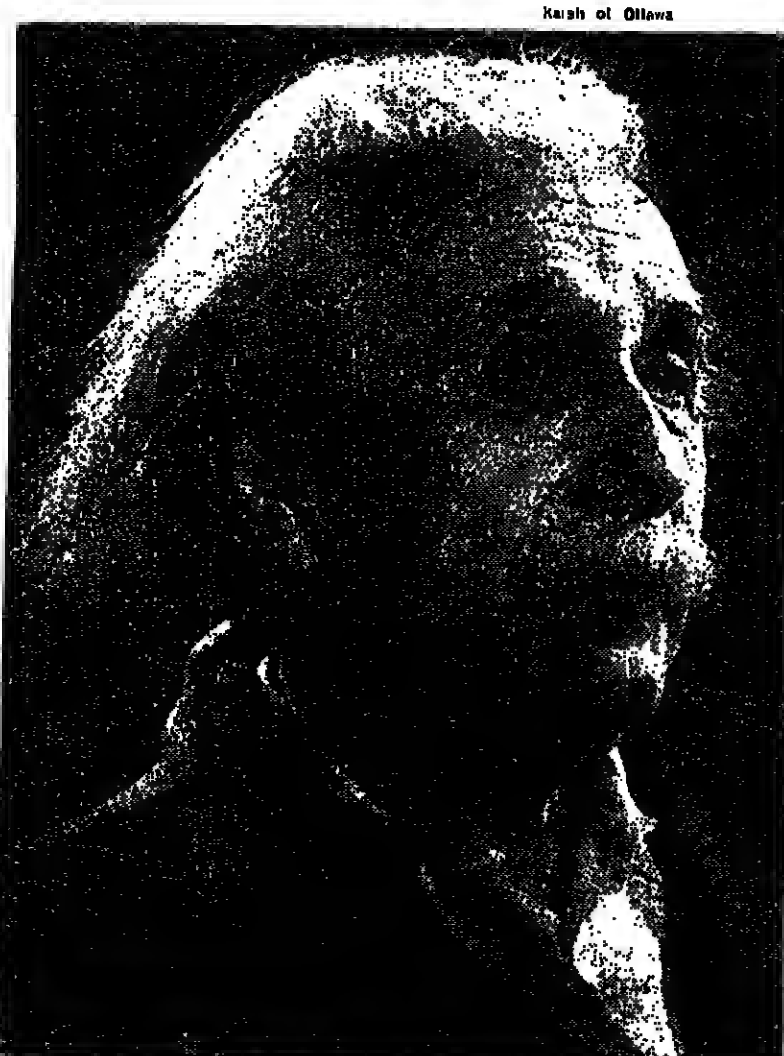
But quasars cannot be stars that just happen to emit large amounts of radio-energy, for it was shown (nearly twenty years ago now) that the radiation they emit is shifted towards the red end of the spectrum to such an extent that, on the conventional view of the expanding universe, they must be very distant objects participating in the expansion of some remote region of the universe. For the time being at least, those who tried to talk their way out of this uncomfortable conclusion had been silenced by their critics.

The conclusion is uncomfortable for two reasons. First, the quasars are indeed distant objects, lying well outside our own galaxy, they must be exceedingly powerful sources of radiation—much more so than ordinary galaxies. But this is the second discomfort—it becomes all the harder to explain why they should be so compact that not even the most discriminating telescopes (working in any region of the spectrum) can tell what their angular dimensions are. The dilemma is nicely summed up in the name quasar, which is short for quasi-stellar object. After two decades of speculation, it is fair to say that nobody has produced a convincing explanation of where all the radiation comes from.

So much is by now familiar history. The number of known quasars exceeds 200, and increases year by year. Although it used to be thought that there would be an increasing number of quasars as telescopes were able to see further towards the more distant regions of the universe, it seems that the quasars are not distributed uniformly over the outer regions of the universe but rather are concentrated in the region between about half and 80 per cent of the way back to the beginning of the universe.

A year ago, when Weymann and his colleagues discovered the double quasar, it was an instant puzzle. The spectra of the two objects in this visible region of the spectrum were more or less identical, and so, in their opinion, they must be the same object. But the question was, how could there be two apparently identical objects in the same place in the universe? The chances of that happening by accident must be exceedingly remote, given that quasars of any kind are remarkably objects.

Weymann's original suggestion was that the appearance of the double quasar was a kind of optical illusion. Really, the argument went, there was only a single quasar, one object giving out a very large amount of energy and moving rapidly away from us. But then, somewhere in between, there must be some object which is able to turn



Albert Einstein's general theory of relativity explained how rays of light are bent by massive objects lying near their path, and has been used recently to explain the appearance of two identical quasars.

the single image of the quasar into that appearance of a double image. In much the same way, as a crystal of calcite will turn the image of a spot on a piece of paper into the appearance of a pair of spots. But what kind of object would do this trick on the scale of the universe? The answer, it is now known, is a massive object lying near their path (which is why, in the 1920s, people were so keen on measuring the deflection of starlight near the rim of the sun at total eclipses).

The explanation of the double quasar, said Weymann, must be that there is a massive object, perhaps a faint galaxy, lying along the line of sight from the quasar to the solar system and that the light from the quasar is deflected in the galaxy as Einstein's theory says it should be. When this quasar was just forward just a year ago, it sounded fanciful. The past year has nevertheless shown to most people's satisfaction that the explanation is correct. The spectrum of the double quasar has been measured from the radio region to the ultra-violet, and turns out to be broadly the same everywhere. Moreover, there is just one chance that the small differences which have been found between the spectra of the two images may in due course say something about the nature of the intervening galaxy, which is nevertheless so much less bright than the underlying quasar that its radiation cannot be seen directly.

People were just settling down to applaud this neat proof of what had seemed, just a year ago, an outrageous idea, when Weymann (writing in Nature last week with seven fellow astronomers) announced the discovery of an even more peculiar object—a quasar with three separate images.

The object is known by its catalogue number PG 1115-08. Among quasars, it stands out by reason of its unexpectedly powerful emission of ultra-violet radiation. From the reddening of the radiation from the

quasar, it can be inferred that its speed of recession is something like 70 per cent of the speed of light. Observation with the 2.3 metre telescope at the Steward Observatory as recently as May this year has apparently made it possible to resolve the image of the quasar into three, separated from each other by only 2.3 seconds of arc—the angle subtended by a 10p piece at a distance of about two miles. This distance is not very much greater than the confusion in the image of a star caused by the movement of the earth's atmosphere above the telescope, yet Weymann and his colleagues are persuaded that their three images are real. For what it is worth, the calculation which have been carried out with Einstein's theory of gravitation suggest that if the light from a distant quasar passes through a massive object such as a galaxy, it may be split into either two or three images.

The presumption, therefore, is that the new peculiar object is another example of the gravitational splitting of a quasar image. Plainly, however, this new object is more complicated than the double quasar already known, for one of the three put together than the other two put together.

There is also a fascinating complication. The use of an electronic light-collecting device has shown that there is a fourth exceedingly faint object something like 10 times the distance away from the principal images are separated from each other.

As yet, nobody can say what this object may be—and it may have nothing at all to do with the triple quasar.

On the single fuzzy record of this part of the observation, however, the fourth object looks for all the world like a secondary image—the kind of reflection you can sometimes see in a transparent piece of glass. If that is indeed the case, the result may be that something can be said about the intervening galaxy.

NEWS

Exams distort language learning says survey

by Bob Doe

Further evidence of the way school language lessons are seriously distorted by public examinations emerged this week.

A survey of more than 100 classes supports the recent attack by the Centre for Information on Language Teaching (CILT) on the artificiality of modern languages exams and confirms the complaints of ILM inspectors that public exams have an undue influence on what goes on in the classroom.

The survey was carried out by the National Association of Language Advisers (NALA) for the biennial National Congress on Languages in Education in Durham next week.

It found that most fourth and fifth year foreign language classes are devoted to a very narrow range of examination tasks and the pupils then learn English spoken in them.

The NALA report says: "It is, to say the least, unfortunate that the examination tasks have little in common with authentic real-life activities. The extensive use of English is 'hard to justify'."

Local authority language advisers sampled a variety of schools for the survey. Presenting their results at the NALA annual conference in Ripon this week, Mr Alan Moys of CILT said: "There are a host of experienced teachers who think the foreign language inappro-

prate as a means of communication with their language classes."

The activities found most often in modern languages classes by the advisers all figured prominently in the examinations. These included reading aloud, oral question and answer and reading comprehension. Only rarely found were private reading, background studies, or activities based on teachers' oral instruction in the language.

Mr Moys was one of the authors of the recent CILT book attacking the distorted or artificial view of language learning and foreign cultures imposed by school examinations, though the authors did not have the results of the NALA survey when they wrote it.

The survey is part of the radical rethink of modern languages methods, aims and objectives initiated by the Durham National Congress of all the major interest in teaching modern languages. The first Congress, held in 1973, was out of the concern that many start about the many pupils who give up languages at the third year, poor examination results and shortages of modern languages teachers.

Mr Peter Townsend, head of modern languages at Pimlico School, London, was at the conference to give a first hand view of the effects of exams on teaching. He said exams emphasized failure rather than success, and even served as a barrier.

Modern languages exams for the majority meant "a dry, dehumanized, out-of-context route march."

Asian parents in fight to save reading centre from closure

by Diane Spencer

Last ditch attempts are being made to save a reading centre for disadvantaged children in a multi-racial area of Leicester.

The Council plans to close Lansdown House centre in the Highfields area to save £15,000 at the end of August. It is one of many economies to save £6.5m from a budget this financial year and more specifically £75,000 from the £334,000 spent on teachers' centres.

Parents, mainly Asians, in the Highfields area of the city, presented a petition to the Council last week; local head teachers have also protested and at a recent meeting with supporters and councillors, Mr Michael Swetland, chairman of the schools committee promised to raise the matter again with education officials.

Mrs Peggy Bradley, who runs the centre, says that the authority spends far too little on basic re-

medial and preventive work and too much on prestige operations such as expensive orchestras and drama.

She and one part-time colleague teach about 100 children a term in the centre, at home or in school. Some pupils have inherited specific reading difficulties, poor spelling, problems with learning English as a second language.

"If the children are deprived of this preventive service, the council will have to pay later," said Mrs Bradley. Her centre is also used as a service centre for parents and as a "drop-in" for children with regular book exhibitions.

The deputy education officer, Mr A. J. Davis, said the centre was needed now to teach backward children. He pointed out that two other centres for these children did exist in the area as did their own remedial teachers.

NUT wants 'action' over cuts

Government attempts to gain more central control of education spending and of the curriculum will restrict both, say the National Union of Teachers.

In a motion submitted to the NUT's annual conference in September, the NUT says government cutbacks in public spending are "completely undermining the social 'grace' and voices deep concern at the dangerous short-sightedness of a social and economic policy which makes the education and training of children and young people the foremost victim of monetarist measures."

Mr Fred Jarvis, general secretary

of the NUT, said: "It is vital that not just the NUT, but the whole trade union movement should be aware of what is happening and be involved in defending the education service from policies which could lead to the dismantling of the service as we know it."

The NUT says there is a need for "positive action" to prevent "the destruction of our education system" and calls for an alliance of trade union groups, and other to protect the traditional balance between society's concern for the curriculum and the professionalism of the teacher to introduce appropriate curricular and teaching methods in schools.

Engineering is top choice

Engineering was the most popular career choice among boys who left independent schools last year, according to a survey of 15,000 school leavers made by the Independent Schools Careers Organization.

Girls chose languages first, followed by secretarial work, although the sample of 1,700 girls from 51 schools was small and possibly unrepresentative.

Other statistics on independent schools released last week include the results of a survey by the Incorporated Association of Preparatory Schools which show that the numbers of children transferring from state to private preparatory schools have increased by two-thirds

over the past three years. The number of eight-year-olds going from state schools to independent schools went up to 140 last year. The previous year it had been 62.

The Independent Schools Information Service also claimed that fears about comprehensive schools leading more parents to send their children to private schools. The survey showed that the percentage of girls transferring to private day schools was nearly twice that of boys last year.

Parental fears about mixed schools and contacts with boys who put forward as reasons for the



Unsound, unstimulating, ineffectual

That, according to

Her Majesty's

Inspectorate, is the

kind of

teaching encouraged

by current

forms of examining.

Mike Raleigh

argues the case for

radical change

In her fifth year English lessons Maria, 15, wrote about 400 words of her autobiography. She helped to scribble and type a thesis on how to write left-handed, gave an illustrated talk to the class on Medusa, and wrote an episode of science-fiction. She made a study of a child learning to read. She translated a poem into English and Portuguese.

She also spent time to lessons on a television practice performance for an O-level English Language examination. She practised doing pieces of writing in an hour, about things she had thought about before; she practised making a summary (for no reason); she made a study of a child learning to read; she translated a poem into English and Portuguese.

Now is the time for that quiet consideration to take place—and for ordinary

intended to help her on her way to the

Computing it roughly, Maria's English teacher gave 60 per cent of the lesson time to a range of activities which were likely to develop her pupils' use of language, which made real demands on their sophistication, and which respected the fact that language to its natural use is marked by purposefulness. About 40 per cent was spent on work which was geared directly to the requirements of the examination, which was unambitious in terms of the nature and standard of its performance expected, and which was, for one reason or another, pointless.

Evidence from two research studies would suggest that this second kind of work, also had little or no effect on the pupils' exam performance; this, the teacher knew anyway from his own experience. Maria got a grade D in her O-level English Language exam.

No teacher needs telling that day-to-day work in the fourth and fifth year is affected by the requirements of examinations of 16. The recent HMI secondary survey suggests that examination requirements determine more or less entirely what goes on in classes in all subjects in the opinion of HMIs, the net effect of current forms of examining is to encourage teaching which is unsound, unstimulating and ineffectual; because of the peculiar sensitivity of English teaching to the way the subject is examined, the ratio about 60 per cent useful to 40 per cent pointless work in the fifth year, is probably exceptional rather than average.

There might be a number of ways out of this trap. Let's get rid of exams at 16, say some; but the notion, with its passion for ranking people, would need a massive transfusion if that happened. Profiling is the answer, say others; but it would take a while to work out what that means, and whether we could handle it.

This advice offered by HMIs is less radical, but quite clear. The schools and the boards responsible for conducting examinations might consider jointly whether examination requirements could be framed so as to encourage more effective learning and use of language.

Now is the time for that quiet consideration to take place—and for ordinary

15 years of discussion the case for a single system at 16 has been accepted. GCE and CSE boards are now engaged in negotiations towards common syllabuses, which will probably set the pattern of examining for at least the next 20 years.

In English Exams at 16, the London Association for the Teaching of English (LATE) has tried to present a detailed analysis of current practice in English examining, and to make some proposals for how a single scheme of examining at 16 could encourage the effective teaching of the subject rather than frustrate it. We have a possible scheme in mind, but that matters less than our feeling that we should not approach the next century burdened with forms of examining which emerged from the last.

What might stop us from getting a reasonable scheme for a single examination in English at 16? In the first place, there is a danger that the syllabuses which finally emerge from discussions between GSE and GCE boards will be more the product of jockeying and juggling than of positive rethinking. The DES—despite rumours of "national criteria"—has offered no lead; the hope seems to be that the boards will "come up with something". The boards, left to their own devices, are likely to come up with something very like what they have got already.

The conventional model of English examining (essay, comprehension, summary, set books) has already shown itself resistant enough to have survived some ferocious criticism in reports and articles since at least 1943. Of course there have been some changes in the examining of English since the Lockwood Report summarized its critique of O level examining. In 1964 in the comment that "the results do not depend sufficiently upon ability to use the language," CSE boards in particular have developed new forms of examining, some of which have been taken up by GCE boards.

But looked at in the light of the Bullock report's conclusion in 1975 that "English requires a wider and more flexible range of assessment than most other areas of the curriculum" many current syllabuses and papers in English at O level

look depressingly like those the Lockwood report deplored. Worse still, there has been a steady retreat from innovation across the country (some areas honourably excepted) in the years since Bullock. Coursework and oral elements, never in some cases given their proper place and weight, have been trimmed and restricted, and some hoary old stuff re-introduced into written papers.

There are, of course, many people associated with examining who are interested in radical syllabus design for the new exams. But they will have to fight to be heard amid continuing noisiness about "standards", about the "benchmarks of O level", and about the "tried and tested" examining techniques which have set those "benchmarks". When discussion, in quiet moments, looks promising, there will always be some prepared to hit the panic button marked "Public Confidence".

This is what that particular siren wails: the Public know an O-level when they see one; they know it means the same thing from year to year, from board to board and from subject to subject; they trust it because the evidence it works on is collected in silence on one day in June and expertly assessed by reference to objective and immutable standards. The Public is much less convinced about a CSE, but might grudgingly admit it to its hooson if it closely resembles an O level. Correspondingly, then, the Public does not like teacher-assessment, coursework and oral elements, and mode 3 schemes.

This is a tedious old story. If the public really does have confidence in the conventional model of examining, they need to be reassured of it. But then nobody seems to have talked to the public very much about examining: the schools, the boards, the I.E.s, the Schools Council and the DES, have all conspired, for their various reasons, to keep them ignorant. We think they need to know a thing or two about what Maria's grade D in O-level English Language actually means.

The first—and most important—thing is that the examination in which she achieved her grade was (some 14 years after Lockwood) an inadequate test of her competence in language. It could tell us nothing about her ability to use

features

the written language in a variety of real circumstances and for different purposes, to read and make use of a variety of material in different ways, in use and understanding oral language. In other words, it could not offer much to an employer, for example, who has any real interest in the language competence of potential employees.

The information the exam could offer on certain narrow kinds of performance on one day in June was then reduced to a single grade—D. If we are looking for a useful description of language competence, D is plainly a blunt instrument. It does not represent a command of a clearly specified and "irreducible" set of skills. There is no objective method which tells us what kind of performance a grade D is; the "method" of English examining begins and ends with chief examiners trying to keep assistant examiners' individual opinions in business with their own opinions.

That naturally means a considerable difficulty in deciding if grade D this year means roughly the same as grade D last year, or (worse) roughly the same as the D as awarded by another board. And what if we try to compare our D with D in examinations in other subjects by other boards in other years? The GCE boards' review of their own comparability studies over 13 years concludes with the suggestion that what is needed is a "more forthright acceptance both by boards and by users of the approximate nature of examination results in general".

So all that Maria's grade D means is that she proved herself, on one day in June, in those circumstances, and generally speaking, better than those who got grade E, and worse than those who got grade C, in that examination. Not quite: there is about a 50 per cent chance that Maria got the wrong grade in any case.

A candidate's performance in one subject's written papers is affected by about 11 variables, some to do with the candidate, but most to do with the design and marking of the examination, which build into the results a substantial degree of error. The effect of this degree of error is most critical at the grade C/grade D boundary: given the particular sensitivity of marks in that area, it is not surprising that candidates double-entered in O level examinations increase their chances of getting a grade C or above by about a third.

Putting it another way, the best we can say about Maria's grade D (without decrying the hard work that a number of people put into giving it to her) is that it could easily have been grade C or, equally, grade E. (Though, in truth, when Maria was re-examined with another board the following November she was awarded a grade B.) Considering that the conventional model of examining places a heavy premium on its capacity to discriminate between candidates, that's really not saying very much at all.

When we turn the forelock to Public Confidence, in conventional forms of examining English, we are referring to those forms of examining which manage to assess the wrong things in the wrong way, and to involve candidates in preparatory work which does them little good (in the examination or thereafter), while at the same time managing to produce untrustworthy and uninformative results. We should not really need now to argue that the new exams should give priority of place to alternative forms of examining based on teacher-assessment (different kinds of coursework, oral and practical forms of examining). All examining is imperfect and imperfect, but alternative forms can at least improve on the limited job of assessing English that the essay-summary-comprehension-set books business does.

A major major report and research studies since Newbolt in 1921 have recommended their use. When properly managed they have manifest advantages in promoting better work in the classroom, and in their ability to notch assessment with that work. If the new exams use them boldly, they at least would be a start.

Mike Raleigh is secretary of the LATE exam group.
"English Exams at 16: An Analysis and Some Proposals for the Future", £1.25 plus 25p postage, obtainable from Terry Furlong, LATE secretary, 3 Buckhurst Road, London SW18 (cheque with orders).

Heritage of chaos

Dzingai Mutumbuka, Zimbabwe's Minister of Education, talks to Ruth Weiss about the overwhelming problems facing his country's shattered school system



ZANU—Zimbabwe's African National Union—the party that swept the polls in Zimbabwe's pre-independence election in February had pledged that education would be free. Moreover, Robert Mugabe, the Prime Minister, said in April that "by the beginning of next year, there should not be a child of school-going age that will not have a school place".

Dr Dzingai Mutumbuka, the young and energetic Minister of Education, who also holds the post of Education and Manpower in ZANU's Central Committee, is in reality, he agrees that the party manifesto said that education had to be considered as a basic human right, and said that "the majority of children of poor parents have not been able to go to school, not because they're inherently dull and unintelligent, but basically because they lacked the means... and we are going to correct this". At the same time, however, he outlines the overwhelming difficulties.

First, many schools were closed during the bush war which was intensified from 1972. "There's no point, no logic, in introducing free education when half of the population's children are out of school," he says. "Thousands fled with their parents to urban slums for shelter; thousands more became refugees in neighbouring countries. As a result of the Rhodesian raids on refugee camps, children were separated from parents and communities."

The process of rehabilitation has been started by the United Nations High Commissioner of Refugees, and children are now being returned from Zambia and Mozambique. Many will have to live in farm schools either until their families are found or foster communities adopt

them. In any event, it seems that farm schools, where they will help to build their own quarters and where they will raise crops and livestock to help feed themselves, is one of the possible solutions for the time being. It means a good deal of red tape to find suitable land, sponsors and teachers.

Teachers are a grave problem, or rather the lack of teachers. Dr Mutumbuka pointed out that African better educated than the average black African into teaching. There were few job opportunities outside this field, "just like American negroes had been forced to become musicians and athletes, not by choice but because there was no other occupation open to them".

In the case of Zimbabwean teachers, they found unexpected openings through the war. The white population was mobilized and employers found themselves short of manpower—so they began to employ more Africans. Many of those people will be reluctant to return to teaching.

The gravest problem, of course, is the destruction of schools. During 1975 and 1976 almost all rural schools—which were always meant mission schools—were closed. Some have been reopened, but they are badly overcrowded and lack not only space but also teaching materials and staff. In Manicaland Dr Mutumbuka found that in almost all primary schools the pupils had doubled, and even tripled in some cases, compared with the pre-1975 situation.

One school near Umtali, closed until 1977 when it had 200 pupils, now had 800. Of these, 500 were in grade 1. The same school had seven teachers in 1977 and though it now had 19, only two had been trained as teachers, whereas the previous

several had all been trained. "We are trying to introduce crash teacher training programmes," said Dr Mutumbuka. "Unless we can do that, we cannot reopen the schools." In all, more than 1,400 schools are still closed; most of these were destroyed and need rebuilding or, at best, major repairs.

Apart from the refugees, there are also the communities that were forced into "protected villages", known as "keeps". Often, as they were moved, the Rhodesian forces destroyed the entire infrastructure of the society: schools, clinics, shops, the villagers are free to leave the "keeps", they are faced with the problem of reconstruction—and schools are only one item among others.

As few schools were built by the communities or the state, almost all rural institutions had been founded by missionaries. And as many of these had sided with their parishioners against the Salisbury regime, a state/Church conflict ensued. With the result that the regime tried to control the rural primary schools, leaving the missionaries to run secondary schools only. This attempt remained theory: the state did not have the means nor the will to administer or maintain the schools, which were allowed to deteriorate, even before the war forced their closure.

Standards of education in the African areas virtually disappeared—and yet the slogan for whites in Southern Rhodesia had always been that of keeping the "standards". It was the magic formula: a black had attained the same standards, then he or she theoretically became the equal of the white.

Such theories no longer concern the Minister of Education. He is conscious of the tremendous need for finance.

destruction of churches, clinics and schools has meant the destruction of investment through cash and work by thousands of individuals and organizations. "So we are faced with a situation where nobody knows where the resources, the money needed, is going to come from, so that schools can be rebuilt."

He quoted one example where "Brother die Welt" (Bread for the World, a West German Church body) had raised some 300,000 Rhodesian dollars for a school that was now razed to the ground, estimates of total damage were difficult, but "probably it would need between 12 to 15 million Rhodesian dollars to get all the old primary schools functioning."

In other words, the task of simply going back to the position in 1975 is going to be a giant task. From meeting the demands made by children who up to now have never been to school at all, Dr Mutumbuka feels bitter about America's aid. During the course of the diplomatic moves over the Anglo-American proposals in 1977/78, there was talk of \$1 million aid. Now, a mere \$2 million had been pledged for medical services. "Sometimes some of us wonder whether we shouldn't have refused that money even small countries like Holland or Sweden prepared to give us \$5 million..."

What angers Dr Mutumbuka most is the talk of statistics. There are none that are reliable, he says—no one can

assess the actual size of the problem of schooling—or anything else—because of the lack of correct figures. No census has been taken for over a decade—the election results were proof of incorrect assumptions of population size and distribution. Dr Mutumbuka is scathing about estimates and assumptions: of literacy rates, of numbers of children of school-going age, even of the number of schools still viable.

In the past, a child became a "statistic" as a school-going child, if it attended school and had registered on the first day. However, no one checked on the drop-out rate, which was high: because the parents needed the child at home, because there was no money for uniforms or books. "But in the statistics, the child would figure as going to school."

He added that, in a country where 90 per cent of the population had lived on the land, there were no expansion plans within his Ministry for the rural school system. The war had widened the gap between town and country even more. One proof of this was the creation of so-called community schools during the era of Bishop Munro. The Ministry of Education "offered" state schools to parent/teacher associations, so that they could "maintain standards". For instance, Churchill High School, valued at more than \$5 million, was bought for \$192,000.

EDUCATION

Changing hearts and minds

Continuing our series on pressure groups, Rick Rogers looks at the birth pangs of what could become the biggest of them all—the family movement

Britain has no coherent family policy—merely separate and inconsistent policies operating from and even within each government department. Most other countries have a family policy, and we are not alone in this. As a nation, we recognize the value of the family and our obligations to them.

In fact, families themselves have failed as a social or hard-pressed and under-motivated as they are to capitalize on the deep political impact they could have as an identifiable and cohesive group. In France and Holland, for example, there is no family movement in Britain.

Several new groupings are trying to change that. The Study Commission on the Family was set up at the end of 1976 under the chairmanship of ex-CBI chief, Sir Campbell Adamson. The commission's membership of 24 is wide, politically and professionally, and includes Lord Carr, Frank Field, A. H. Halsey, the Rapoport, and others. The commission's task is to study the family in its social, economic and political context, and to make recommendations for legislative change. It is a family think-tank.

The conventional pressure groupings are being left to the still embryonic Family Forum. The general idea of a family movement has been gestating for years. One useful starting point was Margaret Wynn's seminal book *Family Policy*, published in 1970. For a key theme of the movement is that governments tend to view families negatively, as a problem to be solved only when they are in trouble (in poverty or breaking down) and not as an integral part of a positive social, economic or political policy.

The commission is funded by the Leverhulme Trust, injecting £100,000 over the next two years. This money will support the full-time staff of three, and four part-time staff. One study will consider the relationship between the family and the state—defining the caring obligations of each, and how they do and should interact. The commission sees it as "an analysis of the assumptions, expectations and attitudes underlying legislative change". It is a family think-tank.

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The Family Forum came out of a February 1978 conference on families organized by the National Council of Social Service (now the National Council for Voluntary Organizations). Representatives of 75 voluntary groups set up a small steering group—which eventually came up with the forum's ideas.

The forum's chairman is Tory MP Peter Bottomley. Other members again come from a broad professional and attitude base. The forum supports the commission's view that we know too little about

This was a situation which the new government could not accept. Fortunately the purchase of "community" schools was a fairly recent innovation, and could be reversed; it had been a ploy to protect white privilege, which had resulted in a most unusual and curious practice of allowing individuals to purchase state property—at a loss to the state.

In Southern Rhodesia the system of expensive private schools for whites, alongside the government school system, which for whites was also expensive—for the state—had always coexisted, with black schooling in general, and rural education in particular, left right years behind.

Adult education is another issue about which the Minister feels deeply. He queries what exactly is meant by being literate: the two main African languages in the country were Shona and Ndebele, with Shangaan and Tonga being minority group languages. He demanded to know how many people were literate in one or several of those languages—and how many people were literate in English. Replies to such questions were not yet forthcoming from the old civil service: they had never thought in these terms before.

"An illiterate person is like a dead person," Dr Mutumbuka says. "Think of all the things people miss who are illiterate... this is a serious matter,

which we should look at critically. In this country... more than half are completely illiterate. How can we develop as a nation, with pride and dignity, when half of our people are for all intents and purposes dead?"

The strategy has several prongs: to rebuild and reopen rural schools, introduce free education, train teachers, and introduce a massive adult education programme. Dr Mutumbuka is understandably appalled by the attitude of many whites, which he calls downright ignorance. This—in spite of the talk of high standards—is only too evident to any visitor, no matter how brief the visit may be. Fifteen years of propaganda pumped out by the Smith regime's media, and the censorship on the press, is responsible for that.

The Minister is aware of the need for practical education. In Zimbabwe the pull of the land is strong; the drift to the towns, such a grave problem in many African countries, will not be an immediate difficulty. He is therefore anxious that new schools should provide the kind of skills school-leavers will need to contribute towards developing the new society. He envisages attaching workshops of all kinds in most schools, in particular in the curriculum of the self-help farm schools for displaced children.

There are many problem areas in the new Zimbabwe: clearly education figures high on the list.

how families operate financially, socially and emotionally. Peter Bottomley says: "It's a question of highlighting what families do as well as what is done to them." He sees the forum having four functions—providing bridges between concerned organizations, lowering the political divisions between them, reinforcing the confidence of people with dependents, and injecting the family into economic and fiscal decision-making.

How much common ground does exist between the voluntary organizations remains to be seen. One delicate area in the preliminary discussions has been the different social and moral notions of what a family is, or ought to be. The eventual agreement means the forum will concentrate on functions—what families do—rather than promoting some ideal of the family. Also, the forum will only handle issues that cross voluntary organizations' boundaries, to avoid duplicating effort and accusations of issue-punching.

How to win for families a higher priority in the decisions and processes of policymaking remains unresolved. Peter Bottomley rejects one popular continental idea—a minister for the family—as ineffective, noting the low return from a minister for the disabled. He favours a less simplistic approach—changing a clutch of hearts and minds rather than having one heart-and-mind as an official conscience.

Government departments could be picked off one by one—education, housing, the tax system, and so on. A family policy review, similar to the one on defence, could act as the necessary link mechanism. The forum though has yet to enter that jungle, and will say little more on how it will behave.

Locally-based family forums are planned, run for and by parents themselves. One suggestion is that the new Family Network Scheme sponsored by the National Children's Homes (NCH) forms a good link. The Family Network began last year because NCH was aware that families were hard put to withstand the stresses of modern life on their own and needed support. The title was chosen with care. Joan Kidd, the national organizer, wanted to signal that we are not in the crisis business, but a long-term supportive organization with, ultimately, preventive rather than purely remedial goals.

There are currently 13 local Family Network phone-in support and referral centres, which also encourage families getting together to discuss specific difficulties and wider family issues. Joan Kidd sees it as "getting families to try to manipulate their own environment rather than have it done for them".

The family movement will focus on parents. What about the children? Coincidentally, there is a "frash" impetus to develop greater representation for children and young people—of school, in court, hospital and at home too. The self-propelled children-in-care groups

linking through the National Association of Young People in Care, the Brent law centre in north London specializing in young people's issues, and the more all-embracing national Children's Legal Centre, are among the current initiatives.

In contrast, the DHSS-funded Children's Committee, set up only in 1978 to advise the government on health and personal social services for children and families, is threatened by the Tories' quango-axe. Never allowed to turn advice into pressure-type clout, the committee has managed to engineer a rubella vaccination campaign, and produce a key report on out-of-hours health and social service care for children.

There is every reason for the two movements to unite on most issues. But some conflict seems inevitable. Restructuring children's rights means cutting back on parental powers and re-ordering of the family. They will also compete for funds from industry and trusts.

Will these moves work? Labour MP Frank Field, former Child Poverty Action Group director, is cautious, but believes a family movement could be more effective more quickly than the efforts of specialized groupings such as the poverty lobby. He cites the recent reaction of Tory MPs over child benefits—angry not because of the effects on families in poverty, but because the Government had reneged on its commitment to "the family".

He remains convinced the "sharp elbows of the middle class can still help families in poverty". The effect, whatever one's pressure specialization—education, environment, poverty—it may be worth, Machiavellian-style, cultivating, manipulating, and even taking over the rallying point of the family.

The family movement though has yet to show that it possesses sufficiently sharp elbows of its own, and can avoid the debilitating excesses of voluntary organization jealousies and political wrangling. But if the movement does take off—and the austere eighties will provide plenty of life—it could become the largest pressure group ever seen in this country.

Rick Rogers is education correspondent of the New Statesman.

Study Commission on the Family, 231 Baker Street, London NW1 6XL (01-466 1292).

Family Forum at the National Council for Voluntary Organizations, 26 Bedford Square, London WC1B 3EP (01-636 4066).

Family Network, National Children's Homes, 85 Highbury Park, London N5 1UP (01-226 2033).

Children's Committee, Mary Ward House, 6 Tavistock Place, London WC1H 9SS (01-387 9681).

National Association of Young People in Care, 47 Godfrey House, Bath Street, London EC1.

books

Children's literature

All creatures

Geoff Fox

King Creature, Come. By John Rowe Townsend. Oxford University Press £3.25. 19 271441 4.
Henry and Beesza. By Beverly Cleary. Hamish Hamilton £4.25. 241 10431 9.

It's a long way from the industrial Colchester of *Grimble's Yard* (1961) to the Precinct of *King Creature, Come*, a pleasure dome of soaring light-fountains and gardens. John Rowe Townsend's pioneering energies brought him from a world of Northern working-class realism through some delicately observed studies of adolescence to a point where, in 1978, he promised: "with the continual pace in my something different... I might try anything now."

What he has tried this time is a yarn set in a future Earth which has never recovered from nuclear war. Some three hundred Persons colonists from the distant planet Annulus, enjoy a languid existence within their dome, sealed off from the Earth Creatures and their delectable city outside. Their life-style is preserved by military Guards, a privileged class of Earth people. Persons have refined their lives to an anomic fluidity, living in a macorous, unfeeling pace with each other. Story has vanished from their culture—few can read and they see fiction only as lies. It is unpersonlike to talk of the body. Intensity is banished.

Persons' names reflect the disciplined orderliness of their society: musical terms for the females, mathematical for the males. Harmony and Vector, the novel's protagonists, are startled by a surging of feeling for each other which challenges the calm of their upbringing. Harmony, more forceful than the narrator, Vector, refuses to return to the parent planet, although females of her age are required to marry, procreate and breed; unless the race is struggling for numerical survival. (Males are left behind in the Colony, and offered "the operation") If their frustration becomes tiresome, Harmony and Vector are obliged to leave the Precinct and live among the Earth Creatures, where food is

short and medicine is reduced to mumbo-jumbo and ancient lore. Events move rapidly. The Guards revolt, murdering almost all the Colonists, only to be overthrown themselves by the Creatures. Harmony and Vector survive—first as puppet rulers under the Guards, then as ordinary Creatures with a part to play in the long task of recreating a decent society.

Through breeding and education, Harmony and Vector are muted in their ability to feel. There can be little opportunity for the subtle exploration of character which distinguishes the best of Townsend's novels like *The Summer People*, although the unfolding emotions of Harmony and Vector are consummated in a discreet "and, a little later" style. However, this plot reflects Mr Townsend's long experience. Despite a slight slackening of tension when Harmony and Vector first leave the Precinct where the portrayal of a graceless violence already present in our own society diverts the author into some episodes which do little to move the narrative along, this is a strong story, urgently told in a setting many young readers will find fascinating. There may be hints of didacticism and warning, but in this particular novel they are necessary, and subordinate to the plot.

King Creature, Come has energy, is episodic in structure, is not too long, and poses some clear-cut issues; it may thus be very welcome to those eager for a new class reader for their second or third years.

Beverly Cleary's *Romona* books must surely be acquiring numerous devotees in this country. *Romona's* friend, Henry Huggins, preceded her in this series which recounts the local escapades of the small group of children living on Klickitat Street, Portland, Oregon. Henry and Beesza was first published in the states in 1952, but Hamish Hamilton are surely right to offer this book now to United Kingdom readers, for the series seems genuinely international and timeless. The scale of these neighbourhood adventures is just right, and the author's prose is a delight to read. *Romona* is surely right to offer this book now to United Kingdom readers, for the series seems genuinely international and timeless. The scale of these neighbourhood adventures is just right, and the author's prose is a delight to read. *Romona* is surely right to offer this book now to United Kingdom readers, for the series seems genuinely international and timeless. The scale of these neighbourhood adventures is just right, and the author's prose is a delight to read.

Acid droplets fall

Philip Sauvain

The Active Earth Series: Rocks, Rivers, Glaciers, Earthquakes, Mountains and Volcanoes. By Topy Nelson. £1.10, each.

The four books reviewed here form part of a six-book physical geography series; the other two titles being *Weather and Sea and Wind*. Each of these paperback books is in landscape format with 48 pages, a full colour cover, and black and one other colour for the diagrams inside.

At first glance the books impress with their large clear photographs and striking maps and diagrams. But closer scrutiny raises some doubts. The text is often far too short to do justice, even at a low level, to the physical features covered by the author. In *Glaciers*, for instance, two full pages are devoted to drumlins, yet fewer than 40 words of text (most from the questions) are apparently needed to describe, let alone explain, their formation. Streamlined egg-shaped hills of (ill) loess, formed by an ice-sheet as far as the author goes. Yet on the same page, inevitably the same amount of space, he asks the question: "The most famous drumlin in the world is probably Hunkers Hill, in the United States. Try to find out what happened on this drumlin to make it famous." Other topics in this book, such as outwash deposits,

askers, buried valleys and periglacial sludge, seem too advanced for the needs of the pupils who are likely to read it.

In his "Note to teachers" Tony Crisp says "The brief, simple text is intended for those pupils of various ages and abilities who might be daunted by longer stretches of prose." While this might be a laudable objective in a reading scheme it is neither desirable nor necessary to books which examine complex physical phenomena, even at the fairly low level envisaged here. Brevity is not always the soul of clarity. In *Rocks*, the section "Weathering by chemicals" begins incomprehensibly with the statement that "Rainwater does not, of course, have vinegar in it...". If, instead of wondering whether you have picked up a bag of Python annual by mistake you read on then a lightening dawn in the second paragraph. But in a book for use in school, by children of limited ability, it should have been clear at the outset.

Apart from the text, which occupies only a small proportion of the space available, there is much to make in these books: the pictorial presentation is first class, and the questions, for the most part, skilfully test the pupil's understanding of each topic as far as it goes, and make efficient and intelligent use of the illustrations.

But it is not easy, in these times, to envisage many teachers buying class sets of six separate textbooks, even consisting alternative physical geography covers much the same sort of ground in one.

Paperbacks

Rabbit ahoy!

Richard North

The Island. By Ronald Lockley. Penguin £1.25. 14 00 5061 2.
Island. By Ronald Lockley. Penguin £1.50. 14 00 5062 0.
Vanishing Birds. By Tim Halliday. Penguin £2.50. 14 00 5586 X.
Nature Day and Night. By Richard Adams, David Goddard, and Max Hooper. Penguin £2.50. 14 00 5345 X.
Nature Detective. By Hugh Falkner. Penguin £2.95. 14 00 5438 3.

The ecologist Ronald Lockley has fulfilled a dream so deeply rooted in most of us that he will be read with almost as much envy as pleasure. No: not merely a dream, but a whole clutch of the things, the all in love with islands, and bought one—Skokholm, off the Pembrokeshire coast. He later became the acquirer of a splendid, descript manner and its lands (Oriskany, near Pembrokeshire).

There is something of a Gerald Durrell at work in Mr Lockley's writing, though he was a young adult when Durrell was working through his own boyish curiosity of the world. They both knew then—and they haven't forgotten—the importance of islands (as naturalists from Darwin to Tim Halliday never cease to emphasise) in evolution and in nature study. They were both taught in important respects. And they are both capable of getting a good story from their private enthusiasms.

The Island is a fascinating account of an island's natural history. But it is also—in rather an attractively naive way—an account of an individual's determination to live a life from that ecology without intruding on it overmuch. Since Lockley's work on Skokholm, was

about (and plagued by) rabbits, it is extraordinary to consider that he actually tried to introduce nymphetos there. By a quirk of island life, it wouldn't take.

The Island is rather a priggish book, and sometimes its prose is on the purple side. The author two or three times refers to himself as "a mere man": which bespeaks an unhealthy self-pity rather than a profound philosophy. However, it is a young man's book. The more mature Durrell is a far sturdier job, and rather funnier. What the Island estate lacks in island wildness, it makes up for in variety, both of animals and people.

In *Vanishing Birds*, Tim Halliday discusses the causes which brought the Dodo, the Great Auk, the Passenger Pigeon and other birds to extinction. He makes of their case histories a working model for preventing more birds suffering the same fate. Islands figure largely, as they "provide a living laboratory"; their small confined community are microcosms of larger continental ecosystems and ultimately, of the world itself. Just as the Normans brought the rabbit to Skokholm (and thus, made this island pay), so man brought live-

Ecosystems

B. S. Roberson

Biogeography. By Rona Mottershead. Basil Blackwell £3.25. 0 31 93510 X.
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Biogeography can be unpopular (but is heavy burden of technical terms and list of botanical names). This book explains new words clearly and keeps massive lists to a minimum. It is carefully graded and offers a most attractive introduction to a subject basic to ecological studies, neglected by geographers and helpful to biologists, zoologists and botanists. It is obviously written by a very good teacher.

The opening chapter is almost deceptively simple, and has the pupil studying for himself from the first page. It puts over the fundamentals of the biological cycle and ecosystems, and incidentally in explaining models and systems shows them as a means not an end. The middle chapters cover plant colonisation, plant growth, succession, climate vegetation and the factors affecting different vegetation covers, after which soil is properly explained. The last parts consider some local problems in Britain, and more of these, particularly in a series called *Applied Geography*, might well replace the final, somewhat hasty sketch of world vegetation.

A full half of the text consists of exercises, based on clear linking passages and ample material offered by picture, map and diagram. This is a most attractive feature, and ensures mastery of the considerable volume of material. These exercises work. The many samples given are interesting and new at textbook level. They are in effect indoor field exercises, and the outdoor field exercises refer to material likely to be found near most schools.

This is a good book. Its obvious place is the first year of A level, where it will surely engender a zest for further study. Those lucky enough to be teaching a progressive O level syllabus will find it more than adequate. It should, of course, be in all field study centres as background reading.

Injection ratios

Let's go to the Farm. By Ronald Long.

Franklin Watts £2.75.
About Farm Machines. By Phyllis Hodder & Stoughton £2.95.
Farm Furniture. By Kenneth Hudson. Hodder Head £2.95.
British Tractors for World Farming. By Michael Williams. Blandford Press £3.95.

"The time seems fast approaching" said John Scott in 1906 to an audience of sceptical Ayrshire farmers. "When motor power will be universally used on the farm, and farm labourers will know more about motors than about horses."

Seventy years later the books under review all impress on the child that the spanner and screwdriver are tools more appropriate to a rural husbandry than the band scythe and hoe. Let's go to the Farm is a book which will know more about motors than about horses.

Kenneth Hudson's *Farm Furniture* deliberately achieves machinery to concentrate on fence, gates, dikes, cattle grids and water troughs, with one monochrome picture per page. Even here an elegant note is struck: the recent adoption in dairy country of the bulk milk collection system has led to the disappearance of milk churns, with the result that the familiar rooed churn stands "rambling abandoned, as places of agricultural archaeology."

About *Farm Machines* brings us back to the star of the show. In clear, two-colour cut-away line drawings we meet the tractor, ponder the mysteries of its four-stroke diesel engine, pore over its Ferguson linkage and hydraulic lift, before examining the mechanics of what

stock to many islands—for to Mauritius, the Dodo is partly for forming purposes partly in case shipwrecked happened along (in the smaller islands). What was destruction (the Dodo, apparently poor fer), and the reduction of rapacious to the Dodo died not because its comic lack of speed was low sublimations. It did not learn to compete with the more efficient predators.

The last pair of books do not do ecological ecology but rather the other side. One is a sheer attractiveness, I would say for the Richard Adams, in a beautiful, clear enough, exquisitely drawn. The text is poetic and partly scientific, a good read. A book to be read with a good eye over moments. *Nature Detective* is a more detailed in its help and to young al fresco. *St. Hippocampus*. Its photographs range from a clear, detailed range from the sand. It is for the enthusiast: the young, the young Durrell, the young Durrell would have been in their stocking.

A New Guinea lakotol under sail. From Made in the South Pacific. Christine Price. (Hodder Head £4.95.)

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Full information about all these events is available from
The National Festival of Music for Youth

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London Borough

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Unless otherwise stated:

Closing date for receipt of applications is 18th July, 1980.

In respect of Headships and Deputy Headships in all schools, and other posts in primary, middle and special schools, forms are available from and should be returned to the Director of Education, Department of Education, Great George Street, Leeds, LS1 3AE.

For other posts in secondary and high schools, application by letter should be made to the headteacher of

extra RESCUING THE REMAINS OF OUR PAST

Bryan Waites on the conservation of historic landscape

During the last decade the explosion of interest in urban environmentalism and concern for it has been so great that it has brushed aside the countryside of Britain. One might almost believe that the countryside had ceased to exist. Yet the threats to our rural heritage are as dangerous as those to the urban environment. The time has come to redress the balance.

W. G. Hoskins long ago recognized that "the English landscape, to those who know how to read it, is the richest historical record we possess". His publications and more recently his television programmes have shown in detail the extent of Britain's landscape heritage. But what is certain is that the countryside is being lost. It should belong to everyone and, best of all, enter more into school work. What does this landscape heritage comprise? Many things we would easily miss as we speed through the countryside along the impersonal motorway: ancient woodlands and more recent fox-hunting covers and plantations—remnants perhaps of earlier land use patterns, mark stones, boundaries and field patterns which may also represent part of the history of the area. Green lanes, footpaths and the like of Roman roads or drovers' roads are a relic of a former, often radically different, transport network.

Trees, especially pollards, individually or in groups, are of special importance. Vaughan Cornish's work on the Chichester Yew and Historic Trees remain classics of what can be done. Country churchyards themselves need further study as do isolated and ruined churches now often surrounded by commons, greens, heaths and fens, sea walls and reclamations which tell much about the settlement of an area and its early colonization. Medieval deer parks, moated sites, windmills and water mills, ridges and furrows, stone walls, deserted villages, hill forts and many other earthworks may be in danger since so few people realize that they have any significance at all.

This will be even more marked when the landscape features are more recent in origin. Dinosaur tracks and railways; abandoned stations and wharves; wartime pillboxes and deserted airfields—all these also form part of our heritage and comprise the growing field of industrial archaeology. Although such impressive archaeological structures as our industrial landscape as we can see at the Ironbridge Gorge Museum reminds the public of our heritage they do not remember when they have these set pieces. This is the picture of the past which will not last in the everyday countryside. So we must find that one of the greatest threats

to the rural heritage is general ignorance of it. Should we not cherish landscape as we do townscape? Perhaps it lies nearer the heart of our people who may not be urban dwellers by nature at all? Landscape features, like historic buildings and conservation areas should be regarded as a legacy for future generations and every effort made to identify, record and preserve them. Time is short. "We believe we have 20 years or less for rescuing hidden history", said Christopher Hawkes in 1973, the unwritten sides, vital for telling the tale of our country's past.

Similarly, in the *Erosion of History* Morrin Biddle commented: "The physical evidence for the history of the British people is being destroyed on an immense scale, at an increasing pace and often without record. In towns and country, by development and redevelopment, by extraction of sand and gravel, by mining, by forming and infilling, the surviving remains of our past are being steadily eroded."

Each day of threats to urban conservation but do we know about Dorset farmers ploughing up hundreds of prehistoric sites? About the Army shelling hill forts and round barrows? About the Southern Electricity Board bulldozing Roman cemeteries? Motorways cutting through mesolithic sites or threatening to go through national battlefields? Read *Rescue News* and you will soon find out about this nationwide crisis in historic conservation. With one of the richest archaeological and historic heritages on earth, this country is squandering its national assets at a tragic rate.

One major archaeological site is destroyed for every half mile of motorway built. At least for the sake of our increasing tourist income we should now pay greater attention to this critical situation. The threats are not only in the green and pleasant landscapes of rural England but also in wilderness areas. Paul Johnson writing in the *Daily Telegraph* calls the Scottish Highlands and mountain fringes of the Celtic Sea a "doomed landscape" for not just people but the very physical structure of the land and sea will be lost. The speed of historical change increases every year. He identifies the threats coming from oil and other minerals.

How can we develop an awareness to the conservation of historic landscapes in schools? Never have there been so many useful resources to do so. The procedure is made clear in publications such as *Pooling Past Landscapes* by J. M.

Stearns and B. F. Dix (Council for British Archaeology, 1978) and by Christopher Taylor's *Fieldwork in Medieval Archaeology* (1974) and *Fields in the English Landscape* (1975). More specific help is given in booklets like *How to record graveyards* by Jeremy Jewess (CBA, 1979).

Landscape history is becoming a popular course in further education and as people travel the countryside more they will need to know where to go and what to do. There will be more places like the Bosworth Battlefield Centre seeking to interpret the past to the public.

Planning and local authorities are beginning to take a share of this. One good example is the Laxton Trail aimed at exploiting the famous medieval open fields (now at risk) produced by Nottinghamshire County Council. Another is the Captain Cook Country Trail published by Middlesbrough Recreation Department.

Museums not only provide interesting and relevant displays and publications on local heritage but they more freely open their archives to children for serious study. Better still, research groups, such as the Desford Village Research Group, enlist young helpers and like the Trust for British Archaeology, encourage educational applications to their work.

Besides, examples are all around us for study. Long journeys are not necessary to reach our past. Rural heritages. Your school itself may be located on or near to a deserted village site or a Roman fort. Perhaps an old canal started in your school playground. The contemporary significance of historic conservation gives it an urgency and relevance most suited to teaching. Past, present and future focus together. Perhaps a new town is planned on your doorstep or a village site is being threatened by a new development. This is a matter of local controversy.

Study of the historic landscape also integrates disciplines such as art, architecture, archaeology, history, geography, environmental education and planning by its holistic approach. This leads to curriculum innovation in which a sequence of problems to be solved by a team of teachers and pupils fortifies a conventional syllabus. Often, working in association with adult groups, perhaps at weekends, may also demand a new approach. The embracing requirement of documentary analysis, library work, fieldwork, photography, sketching, map work and so on, integrates technical study in an active and purposeful way.

What activities can be initiated? Pupils can assist in public projects on a local and national basis. Already "Young Rescue" involves children. Many have worked with great enthusiasm on archaeological digs, for example along the Roman Wall at Vindolanda. In Stamford, a primary school class completed an important churchyard survey. Teachers can extend their classroom work by means of competitions and holiday projects.

A class can keep a public watch on events from the past or the dangers to the historic landscape. A newspaper resource collection could be made from this. Particular watch should be kept on large schemes such as new reservoirs or motorways and controlled field walking over these areas attempted.

A useful way to personalize this work is to adopt a landscape feature, a greenway, pond, churchyard, wall, village site or lost village. This would involve not only study of the chosen site, but care and conservation of it.



Now often isolated and ruined, country churchyards are a rich part of our heritage.

of a Roman road, canal or desert railway, the site of old rural industries, remaining buildings, underground and possibly to set down for all time features which otherwise might be lost. Teachers continue this work as a programme over a number of years it will be of greater value.

Similarly, oral evidence is of importance and tape recordings should be made of interviews with farmers, villagers and others. We use could be made of CSE and level project work in this context. Local groups such as local history societies might produce an inventory of suitable projects for on-site visits to school groups and individuals. Lately, great interest has arisen in the development of gardens. Not only access and improved educational facilities give an appeal to this kind of study for schools.

Ultimately, conservation of the historic landscape must be seen as part of the individual, regional and national cultural heritage. The local, village, town and country scene is his identity. He seeks "the sense of place" and replenishment of the landscape as a source of spiritual values in a balanced life. It has been said that "a people expresses itself through its landscape just as it does through its towns and houses". Can we now begin to care a little more about our historic heritage in the countryside?

Trails could be made, perhaps in association with the local council, museum staff, teachers' centre or local tourist board. Planning a tour through an area can be of great value in learning about the landscape. Examples might be "finding the Normans in the Midlands", an "explorer's trail" in Lincolnshire, a "lost village" in Dorset, or a "crescent walk".

Recording features such as deserted village sites, ridge and furrow, hedge studies, tracing the line of a Roman road, canal or desert railway, the site of old rural industries, remaining buildings, underground and possibly to set down for all time features which otherwise might be lost. Teachers continue this work as a programme over a number of years it will be of greater value.

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extra NOW IS THE TIME...

Philip Neal

The major battle in accept environmental education as a curriculum subject is over. Though minor skirmishes may still occur. Three years ago the Secretary of State for Education and Science acknowledged that environmental education is a significant aspect of the curriculum. A year earlier I had written in the TES that "full objectives and detailed aims for all to go and what to do. There will be more places like the Bosworth Battlefield Centre seeking to interpret the past to the public."

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experience of their locality by direct exploration with all their senses. It will help to develop language, numeracy, scientific methods of enquiry, aesthetic appreciation and creative expression.

The development of value judgment will be assisted, for by the age of five a child has a coherent and consistent picture of the world in which he lives. Later, by the age of 11, many schools have adopted an integrated and often thematic approach to the environment under the umbrella term of environmental studies. The list of investigative areas is large including transport, buildings, animals, plants, local study, farming, industry and many others.

Increasingly the subject is a vehicle for creative writing, pertinent number work, and improving reading skills. It involves research with a scientific basis of first-hand observation, accurate recording, disciplined presentation and considered conclusion. This is a popular approach with the lively and curious youngsters of that age. In the usual mixed ability situation it enables children to proceed at their own pace and provides limitless scope for the imaginative teacher to capitalize on the boundless enthusiasm of these pupils.

From these figures it will be seen that the subject is well established in its infancy, but the influence of the environmental lobby goes beyond its own subject borders. Thus it is that many new syllabuses in traditional subject areas might well be thought of in environmental terms. The Schools Council Geography Project 16-19 has produced an A level syllabus entitled "Man and Environment" which would be most acceptable in the Faculty of Environmental Studies if such existed. The subject is about to launch an O level syllabus "Science and Society" after two years of pilot presentation in a number of secondary schools. The content of the syllabus is environmentally oriented. Recent changes of content and approach in other subject syllabuses reflect the change of attitude. So I repeat, the philosophy is over.

"Now is the time for ordinary educators to recognize that a new ethic, embracing plants and animals as well as people, is required for human societies to live in harmony with the natural world on which they depend for survival and well-being. The long-term task of environmental education is to foster or reinforce attitudes and behaviour compatible with this new ethic."

These are the words of the World Conservation Strategy launched a few weeks ago. "We have a duty to the present and future generations to act upon it. At the same time youngsters in school may see a greater purpose in their studies and, even, enjoy them more."

(1) Shirley Williams in the foreword to the UK's submission to the UNESCO International Conference October 1977.

(2) Philip Neal, "The world is a story", TES July 1978.

At the secondary level the integrated approach may be continued in the early years but at about age 14, environmental studies may appear as an optional subject leading on to external examinations at all levels. Increasingly, too, environmental science is appearing as a subject and offers the continuation to examination level of the sound and imaginative curriculum of the early secondary years. Both subjects are multi-disciplinary.

How do they differ? Environmental studies extends beyond the usual subject borders of history, geography and biology and to a lesser extent rural studies, economics, science and art. Environmental studies spurs the traditional sciences of physics, chemistry and biology and includes elements of geography. Both will involve direct observations and as much time as possible spent on field studies.

The distinctive feature of environmental studies is that it includes a large element of science based on the work, both in and out of the laboratory and involves practical laboratory work in personal

experience of their locality by direct exploration with all their senses. It will help to develop language, numeracy, scientific methods of enquiry, aesthetic appreciation and creative expression.

The development of value judgment will be assisted, for by the age of five a child has a coherent and consistent picture of the world in which he lives. Later, by the age of 11, many schools have adopted an integrated and often thematic approach to the environment under the umbrella term of environmental studies. The list of investigative areas is large including transport, buildings, animals, plants, local study, farming, industry and many others.

Increasingly the subject is a vehicle for creative writing, pertinent number work, and improving reading skills. It involves research with a scientific basis of first-hand observation, accurate recording, disciplined presentation and considered conclusion. This is a popular approach with the lively and curious youngsters of that age. In the usual mixed ability situation it enables children to proceed at their own pace and provides limitless scope for the imaginative teacher to capitalize on the boundless enthusiasm of these pupils.

From these figures it will be seen that the subject is well established in its infancy, but the influence of the environmental lobby goes beyond its own subject borders. Thus it is that many new syllabuses in traditional subject areas might well be thought of in environmental terms. The Schools Council Geography Project 16-19 has produced an A level syllabus entitled "Man and Environment" which would be most acceptable in the Faculty of Environmental Studies if such existed. The subject is about to launch an O level syllabus "Science and Society" after two years of pilot presentation in a number of secondary schools. The content of the syllabus is environmentally oriented. Recent changes of content and approach in other subject syllabuses reflect the change of attitude. So I repeat, the philosophy is over.

"Now is the time for ordinary educators to recognize that a new ethic, embracing plants and animals as well as people, is required for human societies to live in harmony with the natural world on which they depend for survival and well-being. The long-term task of environmental education is to foster or reinforce attitudes and behaviour compatible with this new ethic."

extra MULTI-PURPOSE PACKS

Reviewed by David Alexander

Northamptonshire Waterways — Stoke Bruerne
Hedgerow shrubs and trees—a guide to identification
The Lincolnshire limestone—quarries—Wales and Ketter
All £1.50 plus 60p p & p. From Nene College, Northampton NN2 7AL

These three multi-purpose resource packs seek to provide an integrated collection of primary and secondary source material, together with some original research and a list of suggestions for further study. They form an interesting example of work, financed largely through the Manpower Services Commission and Northamptonshire County Council, which seeks to interpret in detail a series of local environments.

Stoke Bruerne documents the impact of the Grand Junction Canal on a village community. Authentic documents provide ample evidence of how much knowledge can be gleaned from local newspapers, census enumeration returns and oral reminiscences. Tape recorded conversations with local people—the voice of everyday—produce a dimension absent from much historical work.

The material is simply laid effectively presented with the documents contained in a separate file. Documents 15/16, for example, examine the navigation of Rillsworth Tunnel and graphically describe a journey in one of the tunnel tubes operating in 1932. The study shows how much there is to find out about one's own local canal.

Studies of Hedgerow shrubs and trees are perhaps partly a response to the serious loss in hedgerows that has followed highly mechanized

farming techniques. Hedgerows provide a much wider focus than acting as property boundaries or keeping livestock in its place. They form important visual components in the landscape, provide evidence of past rural landscapes and give invaluable habitats for wildlife.

This pack argues strongly in favour of practical field experience to overcome "botanical illiteracy" but this becomes doubly important in the company of someone with first-hand field knowledge. Since it is argued that most hedgerow studies are carried out during the summer months, the primary identification used is that of the leaves. It is valid to see this as an interim work of wide local use which will encourage the teacher to consider hedgerows as a focus for a whole range of educational study.

Quarries have long been with us, but whereas once they were small and served local demand, today they have become much larger and serve regional and national markets. It may or may not be the case that quarries "represent the environmental price" that has to be paid in order to maintain and facilitate further development of the way of life that the embracing community chooses to pursue, but nevertheless it is right to encourage discussions on such a sensitive and on the linkages between such minerals in limestone, for example, and the cement and concrete we see so readily around us.

This pack considers two quarry communities in Lincolnshire and examines the evolution of the limestone resource in terms of demand, extraction methods, production processes, transport and distribution. It provides opportunities for contrast between this area where the impact of quarrying is considered less, and those controversial areas in the Peak District and Yorkshire Dales.

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Dr Terry Jennings, Senior Lecturer in Science at Keswick Hall College of Education, Norwich

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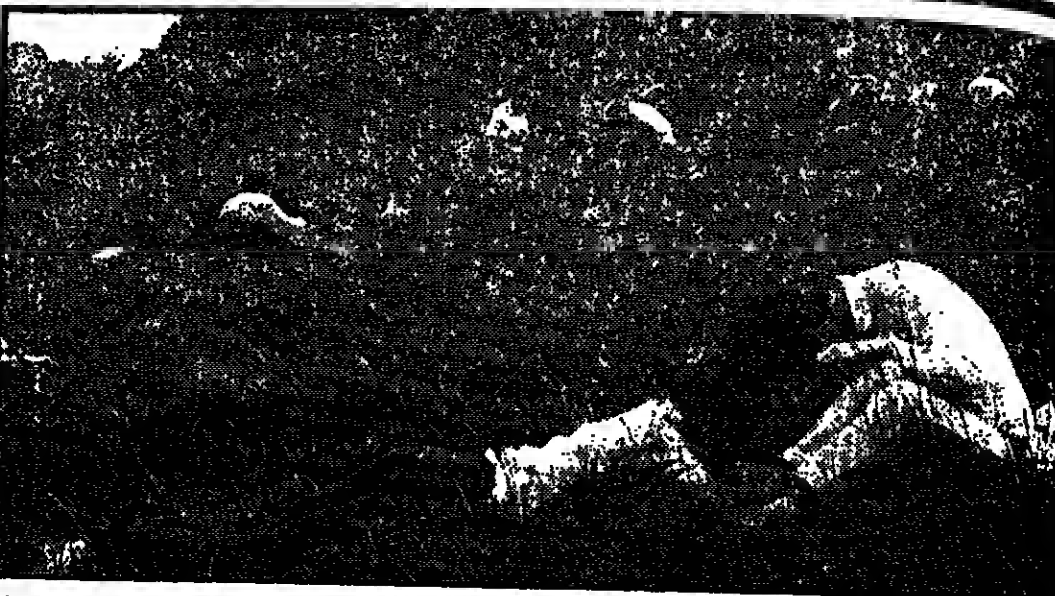
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Studying mosses around Juniper Hill.

SPECIAL STUDIES ON LOCATION

Shirley Toulson reports on the Field Studies Council courses available for schools

The Field Studies Council invites any teacher, who is unfamiliar with its work, but seriously thinking of taking a group to one of its residential field centres, to spend a weekend as the council's guest, and to find out exactly what it has to offer in the various aspects of ecological studies. This weekend is also a time when the teachers get to know the FSC staff, and work with them in the preparation of a course, which can either be run by a member of the staff at the field centre, or by the teacher.

Those who opt for the former type of course can be sure that it will be run to suit the individual needs of the school group, and that it will be organized so that it fits in with any projects, at whatever academic level the school is working on. In fact, John Crothers, the warden of the Leonard White Field Centre at Nettleton, County of the borders of Essex, is proud of the fact that he has never repeated a course, but that each one has been individually tailored for a particular school. For this reason, time spent in preparation for a course run by the Field Studies Council is of enormous importance.

If you decide to take up the council's invitation, the first step is to write to Paul Croft, the education officer at Preston, Montford, 111W. He will provide you with leaflets relating to the provision for a level studies at the plus field centres run by the council, as well as opportunities for work with a CSE and middle school pupils. Croft is a biologist, who joined the FSC direct from Bristol University, and who became the council's education officer in 1978. He firmly believes that every one should have some sort of course on man and his environment; and that whether this study is made under the umbrella of "biology" or "geography", no one should leave school without a sense of the environment and the way it affects it.

Although the FSC is still unfortunately not represented on any of the examining boards, and can therefore have no direct say in shaping the syllabus, it has more to offer in furthering Croft's aims than any other institution. Immediately after the last war, when few people had even begun to think about ecology, planning and conservation, the FSC was set up with the express purpose of helping people to have a better understanding of their environment. Now its main centres are able to offer scope for various specialist studies arising out of their particular locations.

So, Juniper Hill near Dorking has access to a number of excellent educational nature reserves situated in a wider diversity of landscape arising out of the various geological formations in the area than Surrey is generally thought to provide. Flashed Hill near Colchester has access both to freshwater and salt marsh habitats; the working area of Preston Montford, near Shrewsbury includes the glaciated valleys of the Welsh mountains and the glacial lowlands of the Shropshire Plain; this makes it a particularly useful centre for geological studies.

The same applies to Molham Tarn in North Yorkshire, situated on the edge of the Craven fault, with its classic limestone pavement; The Leonard White Field Centre provides opportunities for the study of marine biology and moorland ecology; and Slepton Ley near Kingsbridge, Devon, offers the same facilities on a very different stretch of shore.

There are three centres in Wales. The Dampers Field Centre near Batwys-coed has access both to the wide range of habitats to be found in Snowdonia and the sand dunes and rocks of the North Wales coast; in Dyfed, Dale Fort, near Haverfordwest offers many opportunities for shore and marine biology; and Orleton near Pembroke, which stands in its own woodland, and surrounded by a wide variety of natural habitats, relatively unaffected by man, is also close enough to the major oil terminal at Milford Haven to make it possible to study the ecological effects of large-scale industrial changes.

Each centre is also able to offer school parties the benefit of access to data relating to specific studies.



Using a net to extract insects from a sheep net.

and collected over a considerable length of time. These studies arise both from the actual location of the centre and the particular interests of the staff. Four examples from the work going on at the Leonard White Centre in Somerset, which is on the edge of Exmoor, and just four miles away from the exceptionally varied coastline of the Bristol Channel illustrate this point.

Its warden, John Crothers, is a marine biologist specializing in the study of dog whelks, whose colonies he has observed along the coasts of Europe from Spain to Norway. He is interested not just in the creatures themselves, but in the way their size and colour are related to all kinds of coastal conditions. His studies are of obvious relevance to predicting the changes in those conditions which can be effected by the collection of off-shore oil.

Ha has already done work on this in Shetland, and since he has been invited to his observations to the FSC, a considerable amount of data has accumulated. It is the school parties working on ecology of the Somerset coast, Watcher to Lynmouth.

The other three research groups, going on at Nettleton, are more modest in scale, but they provide an equally valuable means of understanding how long-term trends can be monitored. For some years Mark the centre's botanist has been looking at the relation of the position to its habitat; the department end geographer, Heather Croft, has been concerned with hydrology projects; and she has set up a grassland area.

Teachers, who close to the least a part of their own Field Studies Centre on an ongoing research project, obviously introduce their own methods of collecting and recording data that can usually be produced or second-hand. It is to make the most of this opportunity they have access to the laboratory equipment, which is available to schools and to the full potential of such equipment as the schools can provide, using the maximum use of the pocket calculator for rapidly ceasing data and indicating the stage of an enquiry.

Above all, the sort of work involved with projects such as on a particular species (such as whelks or campon), about which a lot of data has been collected, to a detailed and purposeful analysis of the varying interrelationships of all the organisms in an environment.

It is obvious that in order to take full advantage of all that a field studies centre has to offer, teachers and students alike must be prepared to work very hard. The weeks run from Wednesday to Tuesday (partly in order to take advantage of mid-week rail fares), the work starts at nine o'clock in the morning, usually continuing nine or ten at night. Sunday sometimes left free so that students can catch up with the notes and from the previous days' work.

Although I have concentrated mainly on this course, the FSC can offer a level of study (and indeed this is the chief aim of the council's work with schools) the centres also welcome CSE students as well as those from middle and junior schools. At the other end of the scale, it is happy to run in-service courses for practicing teachers, or to support the college courses for student teachers.

These courses are all aimed to meet particular needs: biology graduates working for Postgraduate Certificate in Education from Bristol and Bath Universities; to courses at Slepton Ley in Devon while school are also attending the centre means that they can have as well as subject experience.

GAENOR'S WALK

By Paul Thomas

We shield our small children from the countryside. Protect them from the tooth and clay is too disturbing; young children do not have the stamina for long walks; birds and small animals move too quickly for children to be able to see and identify the constant stream of change and bustling life of all wild life; few views can be appreciated over the hedge, fence or wall when the person viewing is only 100 centimetres tall; and anyway what if it should rain, snow or hail?

Recently my four-year-old walked from Bath to Wells, across the Mendips, a distance of nearly 25 miles. It was not her first long distance walk and she has completed others since, but because it was easy to arrange and easy and convenient, it demonstrates the potential of long distance walks for small children.

We took a cheap, portable cassette recorder with us, and Gaenor (my daughter) was allowed to talk about anything she thought was significant. Her descriptions varied from details concerning the oval of a jelly baby she was eating to her conjectures on the age of some rabbit droppings which we found near a warren and which were in use as scent markings to determine territory.

In fact, we were amazed at her patient observations and her readiness to describe what she saw. It was also a very salutary exercise for me. When I played back our recordings it was obvious that I had missed many of her observations and had failed to answer either directly or indirectly many of her questions.

We didn't attempt to capture the moods of the countryside. Our equipment was too cheap and natty to do that successfully. It was our vision of the countryside that we carried home on tape and which we played back for our own benefit and the boredom of our friends.

We did not wait on the weather. We chose our day and went. In fact it was the observation of weather, the most profound effect on my daughter. Not just that we got wet, which we did, but that we were able to see the weather in the context of wide open spaces and not just wet or dry, windy or still, cold or warm events in the street.

When we walked over the highest part of the east Mendips, just over 1,000 feet, the cloud base was 800, so Gaenor now knows what it is like to walk with her head in the clouds.

More impressive than this was the storm. It was a classic cold front travelling fast from the south west, across the Somerset Plain. We saw its approach from the east of the Mendips and also saw the fine weather coming in behind it. This latter was christened The Light and Gaenor wanted constant reassurance and comfort that we were walking to the Light.

The effect on the wild life was obvious. A house roared and neighed, the birds went silent. The wind freshened, and the light changed, from bright sunshine to blue light at midday and scuffed, the work starts at nine o'clock in the morning, usually continuing nine or ten at night. Sunday sometimes left free so that students can catch up with the notes and from the previous days' work.

I was exhilarated, excited, and Gaenor asked a question on behalf of all the animals: "Where do the cows go in a storm?" and pondered long and hard over the answer, until on reaching a field of whole hills, she suggested digging on more earth and piling it on top of each hill so that the poor creatures "wouldn't" drown in the weather.

My daughter's completion of the walk was a small achievement, the sort of delight with which she greeted the signpost "The City of Wells" are recorded for posterity, but the whole project was so easy that it was a great success when people comment that it was unusual.

We certainly cheated, in that we walked the walk into five stages. We left Bath and Wells, on the one route, and one walking stage around this route. Each stage

was a self-contained unit. When we planned the walk we had hoped to walk it on consecutive days, but in the event, we had to enforce "rest" days. This did not detract at all. In fact it might probably have been better to have separated each stage by a week or so and to have "milked" dry the observations made.

There are many opportunities that such a walk gives. A dead badger and a rabbit carcass with one eye eaten by crows provoked a great deal of thought about what animals eat and death in general. Walking through fields that had recently been visited by muck spreaders also provided interesting diversions.

The walk had been well researched beforehand. All the footpaths were easy and open and passed by interesting sites: a trout farm, a fox's earth, a rabbit warren, a small waterfall, fords, and stream, and finished at The Wells at Wells. But the real adventure was the fact that all the small walks were part of a long distance whole.



At the foot of the Mendips.

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Catherine Munnion introduces the Peter Scott Conservation Award Scheme

For each stage—graded by age groups into Bronze, Silver and Gold—a task and record book is provided setting out exactly what is required. Each grade contains four sections comprising indoor research from books, an observation or recording project, some conservation research and an outdoor project.

Children in the 10 to 13 age group, working for the Bronze award, would, for example, find out and note facts like the forest.

Schools up and down the country are already familiar with the Wildlife Youth Service, which is the education division of the World Wildlife Fund. Last year, school groups contributed over £100,000 towards the Animals In Danger (AID) fund. This year, details of Operation Rhino, a fund-raising project for this threatened species,

and a similar project on the house mouse, which was organized with the Institute of Terrestrial Ecology and the Mammal Society. It is sad to learn that a lot of tadpoles have abnormalities in these days of polluted waters, and little boys with jam jars can now collect them, not just for fun, but for serious investigation, too.

This year also sees the launch of a new Summer School programme. In July and August, children between 9 to 16 years can spend a week in one of five centres—in Dorset, Devon, Perthshire, Cumbria and Wales—either in school groups or individually. They will have the leadership and support of

The Wildlife Youth Service is clearly fired by a sense of urgency. The danger to wildlife is immediate, as well as long-term. Many animals have become extinct quite recently, and over a thousand kinds of vertebrate animals could disappear very soon if not rescued at once. Where



What sort of projects do schools and children undertake? The possibilities are extremely varied, from clearing rubbish out of a nearby stream to creating a nature reserve.

Senior students aged 16 and over may be interested in the program of residential tasks organized by the BTCY. A week spent maintaining

The BTCV can provide further information on any of the activities mentioned as well as recruitment posters, membership details and a small leaflet on "Organizing a Communist Party".

Service Project If you have an appetite, please send a large stamped, addressed envelope to the

This Conversation Project Pack has been produced with the financial help of Lloyd's Bank.

By Stephen Sterling

To begin with, studies of the ideas and curriculum implications of environmental education are probably best represented for the practicing teacher by the HMI discussion document *Curriculum 11 to 16: Environmental Education* 1979, the NAEE's *Environmental Education: A Statement of Aims* 1976 and Sean Corson's book *Environmental Education-Principles and*

However, curriculum development in environmental education has tended to be slow, piecemeal and small scale—unlike some work in the United States—despite some related Schools Council projects. For details of past projects and associated materials, obtain the *Learning and Teaching Schemes in Environmental Education* leaflet.

Review of Environmental Education Developments (REED) from the Council for Environmental Education (CEE) examines ideas, practices and developments in environmental education. The CEE also produces a very useful monthly *Newsheet*, which briefly reviews the latest teaching materials and carries a short courses diary.

Directories of environmental edu-

Those interested in out-of-school environmental projects should contact Co En Co Youth Unit, Znanjowski Gardens, Regent's Park, London NW1 4RY.

practical in accurate recording. The ten to eleven year olds spent a residential study week at Nethercott House in Devon, a farm centre for city children. The fieldwork there was used right across the curriculum for the major part of their last year of school.

"Chivener Follow-Up" costs 75p from the Association of Agriculture, Victoria Chambers, 1620 Stratton Ground, London SW1.

Gillian Thomas

Since Joy Palmer became a teacher at Chivenor Primary School, Birm-

LESSONS FROM THE ANCIENTS

The Indians—known as Anasazi or "Ancient Ones"—survived and prospered in Mesa Verde from about A.D. 900 to A.D.1300; no mean feat in a frequently hostile environment blanketed by snow in winter and hot in summer. They left such a mysteriously fragmentary record that eventually becoming lost to other cultures.

The Anasazi left behind a system which, for several centuries, mastered the nature, rather than being at its mercy: they used Indian corn, beans, squash, pumpkins, and semi-subterranean dwellings for warmth and protection.

based on the state's "backdrop" of
an "inspiration." Some critics might
say that the park is a propaganda tool for
the National Park Service; part
should allow people to escape the
message and worries of modern
society, they will say. Others might
call it self-preservation; various
parks are threatened by
tampering with ecological systems.
"A bitter battle over logging interests
recently won," says California's 2,000-year-
old giant redwoods, the world's
tallest trees. Congress stepped in
and increased the size of the park to in-
clude vital watershed areas.
allocated \$93 million to rehabilitate
logged areas. Some lumbering

For more than a century, Americans have enjoyed the beauty and grandeur and significance of the National Park system. The Assistant Secretary of the Interior, Robert L. Herbig, stated recently, "Today every American is being asked to look below the surface to find out how things work, and to make a more efficient use of the resources we no longer afford to take for granted."

The National Park Service, which administers more than 300 of the country's natural treasures and historic sites, has a part to play in reflecting the environmental and social aspirations of these very thousands from these very varied backgrounds.

continued overleaf

The National Parks Service of the USA has a broad mandate to serve the citizen and preserve the environment. Ian Anderson describes their work.

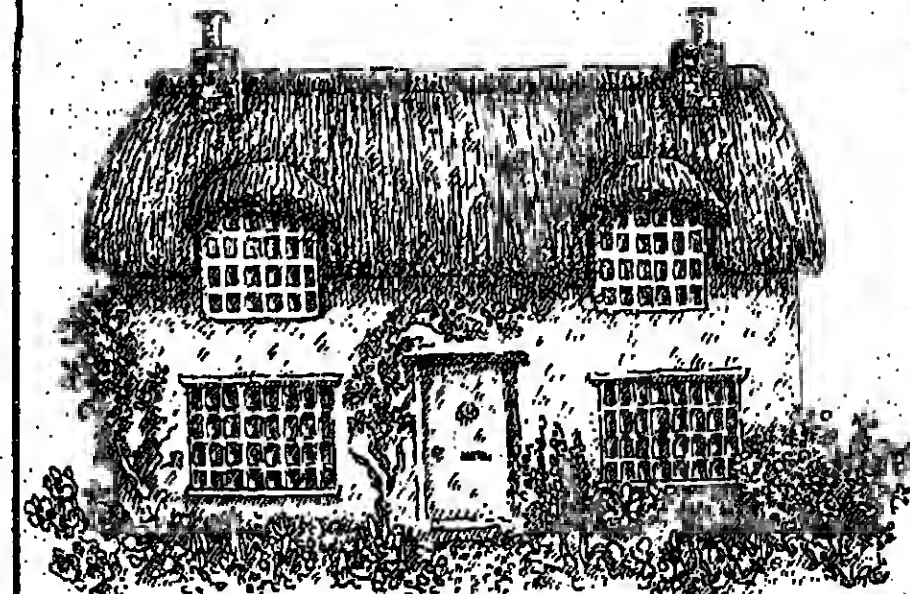
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Hawing Road North, Romford, RM1 4YF.
Head Teacher: O. A. Steward, B.A.
Tel.: Romford 47353.

TEACHER OF CHEMISTRY/GENERAL SCIENCE/BIOLOGY

Scale 1, required as soon as possible to teach the subject throughout the school. There are well established courses to C.S.E. and "O" and "A" level in all 3 sciences within an enthusiastic department.

EMERSON PARK SCHOOL (Roll 1,010 Co. Ed.)
Wych Elm Road, Wingleys Lane, Hornchurch, Essex.
Tel.: Hornchurch 43773.
Head Teacher: J. A. Fowler, M.A.

TEACHER OF HOME ECONOMICS

Scale 1, required September, 1980, or as soon as possible to teach the subject throughout the school to at least C.S.E. and "O" level, possibly beyond. Candidates should be able to offer Cookery and Child Care - Needlework would be helpful. Applications are welcome from experienced teachers or new entrants to the profession.

FRANCES BARDLEY SCHOOL FOR GIRLS (Roll 1,164)
Bromwood Road, Romford, RM1 2RR.
Tel.: Romford 47363.
Head Teacher: Mrs. J. Irwin, M.A.

TEMPORARY TEACHER OF ENGLISH AND DRAMA

Scale 1, required for September, 1980. (One Term in the first instance).

HALL MEAD SCHOOL (Roll 1,050 Co. Ed.)
Maulborough Gardens, Cranham, Uxbridge, Essex.
Tel.: Uxbridge 25684.
Head Teacher: B. E. Saunders, B.A.

TEACHER OF MATHEMATICS

Scale 1/2, required September, 1980, or as soon as possible to assist with teaching S.M.P. throughout the school to "A" level. Scale 2 available to an experienced teacher, but the post could well suit a new entrant to the profession. An educational adviser would be a willingness to teach computer studies. School has its own micro-computer. Informal visits welcomed.

TEACHER OF PHYSICS

Scale 1/2, required September, 1980, to teach the subject throughout the school to "A" level. Excellent laboratory facilities. Scale 2 available to an experienced teacher but the post could well suit a new entrant to the profession.

TEACHER OF HOME ECONOMICS

Scale 1, required September, 1980, to share the teaching of the subject throughout the school. Excellent facilities.

HANLOW LODGE SCHOOL (Roll 750 Boys)
Hanlow Way, Hornchurch, Essex.
Tel.: Hornchurch 57041.
Headteacher: W. S. Yon-Francis, B.A.

TEACHER OF SCIENCE

Scale 1, required as soon as possible. Ability to teach Physics to "A" level an advantage. The school is split into three specialist laboratories on the Upper School site and two general laboratories on the Lower site. The subject is taught to C.S.E., "O" and "A" levels.

TEMPORARY TEACHER OF ENGLISH

Scale 1, required September, 1980, during the maternity leave of absence of the present holder. The department is well organised and an enthusiastic team and the subject is taught to "A" level.

MARSHALLS PARK SCHOOL (Roll 1,400 Co. Ed.)
Sixth Form 65
Havering Drive, Romford, Essex.
Tel.: Romford 21134
Headteacher: T. B. Coomer, B.Sc.

TEACHER OF TECHNICAL DRAWING

Scale 1, required September, 1980, or as soon as possible thereafter to teach the subject in years 3-5 including CSE and GCE involvement.

TEACHER OF MATHEMATICS

Scale 1, required September, 1980. Initially for work up to GCE, "O" level. Mainly traditional with syllabus under review. Education Computer facilities available.

TEACHER OF FRENCH

Scale 1, required September, 1980, or as soon as possible thereafter. Full range of examination work available for a suitable candidate.

TEACHER OF COMMERCIAL SUBJECTS

Scale 1, required September, 1980, or as soon as possible thereafter.

THE NEAVE SCHOOL (Roll 807 Co. Ed.)
Settle Road, Harold Hill, Romford, Essex.
Tel.: Ingebourne 71334
Headteacher: J. B. Dunn, M.A.

HEAD OF HOME ECONOMICS DEPARTMENT

Scale 3, required for September, 1980, with emphasis on Cookery. Good facilities. Three Domestic Science and one Needlework rooms. Three full-time and one part-time staff in department.

TEACHER OF ENGLISH

Scale 1/2, required September, 1980, to teach courses to CSE and GCE "O" and "A" levels. Good library facilities. Scale 2 available to a suitably qualified and experienced applicant.

REDDON COURT (Roll 621 Co. Ed.)
Cotswold Road, Harold Wood, Romford, Essex RM3 0TS.
Tel.: Ingebourne 42293
Headteacher: B. A. Grooms, M.A.

TEACHER OF CHEMISTRY

Scale 2, required September, 1980, or as soon as possible thereafter. A suitably qualified and experienced person required to teach CSE and "O" level courses to develop an "A" level course in the near future and to be responsible for the organisation and development of Chemistry within the Science department.
A new Chemistry laboratory is under construction. Newly qualified students will be considered.

ROYAL LIBERTY SCHOOL (Roll 897 Boys)
Upper Brentwood Road, Romford RM2 8HJ.
Tel.: Romford 40543
Headteacher: J. P. Coles, L.A.

TEACHER OF MATHEMATICS

Scale 1/2, required as soon as possible to teach the subject to CSE and "O" level with some "A" level work. Scale 2 available to new entrants.

SAUNDERS ORPEN SCHOOL (Roll 997 Co. Ed.)
Suttons Lane, Hornchurch
Tel.: Hornchurch 43009
Headteacher: G. Rogers, B.Sc.

TEACHER OF GIRLS' P.E.

Scale 1, required September, 1980. This vacancy offers an excellent opportunity for a newly qualified teacher in a school with excellent facilities.

SECONDARY

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GLoucestershire
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Hertfordshire
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Hillingdon
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Hillingdon
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Hillingdon
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Hillingdon
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Hillingdon
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Hillingdon
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Hillingdon
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Hillingdon
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Hillingdon
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Hillingdon
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Hillingdon
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Lancashire County Council

Unless otherwise stated, the following posts are required for 1st September, 1980.

For further details and returnable to the Head Teacher at the school (S.A.E., please).

Closing date: 14th July, 1980.

SECONDARY SCHOOLS

OVER WYRE ST. AIDAN'S C.E. HIGH
Cartgate, Presall, Blackpool (Roll 680)

SCALE 1—CHEMISTRY/BIOLOGY

CLITHEROE RIBBLESDALE COUNTY SECONDARY
Queens Road, Clitheroe (Roll 1,200)

SCALE 1—SCIENCE

BLACKPOOL ST. MARY'S R.C. HIGH
St. Walburga's Road, Blackpool
(1,130 mixed, roll 270 in 8th Form)

SCALE 1—TWO POSTS

(1) CRAFT, DESIGN AND TECHNOLOGY
(2) ENGLISH

LYTHAM ST. ANNE'S ST. BEDE'S R.C. HIGH
Talbot Rd., Lytham (Roll 824)

SCALE 1—SCIENCE

KIRKHAM CARR HILL COUNTY HIGH
Royal Ave., Kirkham, Preston (Roll 1,369 Sept., 1980)

SCALE 1—MATHEMATICS

Postholder at A level work

PRESTON ASHTON-ON-RIBBLE HIGH
Aldwych Drive, Ashton, Preston (Roll 1,032)

SCALE 1—MATHEMATICS

LEYLAND BALSHAW'S HIGH
Church Rd., Leyland, Preston
(Roll 675; 11-16 mixed comp.)

SCALE 1—MUSIC, GENERAL SUBJECTS

BURSCOUGH PRIORY HIGH
Travoy Rd., Burscough Ormskirk (Roll 950 mixed)

SCALE 1—TWO POSTS

(1) MUSIC

Willingness to share in work of their own orchestra advantages.

(2) GENERAL SCIENCE

Physics advantage.

SKELMERDALE, ST. THOMAS THE APOSTLE R.C. HIGH
Glenburn Rd., Skelmerdale (Roll 540)

SCALE 1—TWO POSTS

(1) RELIGIOUS EDUCATION

With English, Typing, Maths (any combination).

(2) GEOGRAPHY

With R.O., English, Maths, Typing (any combination).

BLACKBURN EVERYTON HIGH
Menaxmen Rd., Blackburn (1,050 mixed)

SCALE 1—FRENCH

BLACKBURN BILLINGE HIGH
Preston New Rd., Blackburn (1,210 mixed)

SCALE 1—GENERAL SCIENCE/MATHEMATICS

Postholder also appointed to Lower School, Science teaching.

BLACKBURN PLECKGATE HIGH
Pleckgate Rd., Blackburn (1,200 mixed 11-16 comp.)

SCALE 1—FRENCH

To A level if possible, a second language (preferably German) advantage. (Two posts)

ACCRINGTON THE HOLLING COUNTY HIGH
Hollins Lane, Accrington

SCALE 1—SCIENCE

Mainly Physical Sciences to CSE, and O level.

HAULINGDEN HIGH
Broadway, Haulingden, Rossendale (Roll 1,380)

1st September, 1980, or 1st January, 1981.

SCALE 1—FRENCH AND GERMAN

SCOTTISH APPOINTMENTS

LOTHIAN REGIONAL COUNCIL DEPARTMENT OF EDUCATION

Applications are invited from registered teachers for the following posts:

PRIMARY ASSISTANT HEAD TEACHER

Reference: D. Midland Primary School

Responsibility Allowance £980

SECONDARY PRINCIPAL TEACHER

Reference: D. Craigfield High School

Responsibility Allowance £1,416

Reference: D. Thorncliffe High School

Responsibility Allowance £1,416

ASSISTANT PRINCIPAL TEACHER

Reference: D. Ardenholme Academy

Responsibility Allowance £777

Reference: D. Liberton High School

Responsibility Allowance £1,005

TEACHER

Reference: D. Ardenholme Academy

Responsibility Allowance £777

Reference: D. Liberton High School

Responsibility Allowance £1,005

Reference: D. Ardenholme Academy

Responsibility Allowance £777

Reference: D. Liberton High School

Responsibility Allowance £1,005

Reference: D. Ardenholme Academy

Responsibility Allowance £777

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Responsibility Allowance £777

Reference: D. Liberton High School

Responsibility Allowance £1,005

Reference: D. Ardenholme Academy

Responsibility Allowance £777

Reference: D. Liberton High School

STRATHCLYDE REGIONAL COUNCIL

Dunbarton & Renfrew Sub-Regions

SOCIAL WORK DEPARTMENT

(a) Children's Assessment Centre—Dunbarton Division

(b) Newfield Assessment Centre—Renfrew Division

Cardross and Newfield Assessment Centres are new purpose-built Assessment Centres offering assessment and short-term care for children aged 8 to 18 years.

The Cardross Centre is situated between Dunbarton and Helensburgh. Newfield is situated on the outskirts of Helensburgh.

Both Centres will provide professional support and all teachers will be eligible for promotion to the rank of Senior Lecturer.

The Education Department, Strathclyde Regional Council, is inviting applications for the following posts:

PRINCIPAL TEACHER

(one post at each centre)

Salary Scale—£4,323-£8,903

(WEF 1/9/80). Plus responsibility payment of £361. Plus, if appropriate, additional responsibility payment of £145. Plus List 'D' School Allowance £1,163. Plus, if appropriate, Remedial Allowance £189.

The successful candidate will be responsible for the overall management of the planning and implementation of a full range of educational activities within the Centre. Applicants must be Registered Teachers and must have had extensive experience in an Assessment Centre, List 'D' School or similar establishment.

TEACHERS OR INSTRUCTORS

(live posts at each centre)

Salary Scale—Teacher—£4,323-£8,903

(WEF 1/9/80). Plus List 'D' Schools Allowance £1,163. Plus, if appropriate, Remedial Allowance £189.

Instructors—Grade 1—£4,797-£6,528

The successful applicant will be either Registered Teacher who will assist with the development of a full educational programme; Or Instructors who can offer a background of knowledge and experience in practical skills, e.g., Arts and Crafts, Woodwork, Pottery, etc.

In all cases applicants should have had experience in working with children suffering from emotional, or behavioural difficulties. Teachers and Instructors will be expected to participate fully in the assessment process and to provide Assessment Team meetings with detailed information and advice both with regard to attainment standards and patterns of behaviour in the classroom.

List 'D' Conditions of Service will apply to all posts. Informal enquiries regarding the posts should be made to: (a) Cardross Assessment Centre—Mr. R. Grimwood, Officer-in-Charge—Tel. Ardross 2131. (b) Newfield Assessment Centre—Mr. C. J. J. Webb, Officer-in-Charge—Tel. Helensburgh 28034.

Application forms may be obtained from end and should be returned, by 18th July, to: (a) Cardross—Assistant Director of Manpower Services, Regional Offices, Gerstons Road, Dunbarton. (b) Newfield—Assistant Director of Manpower Services, Regional Offices, Colton Street, Paisley.

R. M. O. McCulloch,
Director of Manpower Services.

Closing date for applications 18 July, 1980.

SPECIAL EDUCATIONAL SERVICES

ST. GILES SCHOOL AND SERVICES FOR THE HEARING IMPAIRED

1 CLASS TEACHER

2 PRE-SCHOOL HOME VISITING TEACHER

Applications are invited from registered teachers who held a recognised qualification to teach deaf children for the above posts at St. Giles School.

Those wishing further information should contact the Head Teacher (Telephone 601-443 0304).

Salary is in accordance with the current Scottish Teachers' Salaries Memorandum.

The following allowance is paid: Qualification for Teacher of the Deaf: £216.

Application forms for the above post are available from the Divisional Education Officer, Division 2, Personnel, 40 Torphichen Street, Edinburgh EH3 8JL.

Closing date for applications 18 July, 1980.

SPECIAL EDUCATIONAL SERVICES

KAINE'S SCHOOL FOR THE PARTIALLY SIGHTED

Applications are invited from registered teachers for the post of Class Teacher in the above school. Previous experience at work in a Special School is desirable but not essential.

The salary is in accordance with the current Scottish Teachers' Salaries Memorandum.

Further information may be obtained from the Head Teacher, 601-443 0304.

Application forms are available from the Divisional Education Officer, Division 2, Personnel, 40 Torphichen Street, Edinburgh EH3 8JL.

Closing date for applications 18 July, 1980.

For further details and returnable to the Head Teacher at the school (S.A.E., please).

SCOTTISH APPOINTMENTS

Appointments in Scotland

Other than by Subject Classification

DUMFRIES REGIONAL COUNCIL

SECONDARY SCHOOLS

Reference: D. Dumfries High School

Responsibility Allowance £1,416

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Responsibility Allowance £1,416

Reference: D. Dumfries High School

SCOTTISH APPOINTMENTS

Appointments in Scotland

Other than by Subject Classification

DUMFRIES REGIONAL COUNCIL

SECONDARY SCHOOLS

Reference: D. Dumfries High School

Responsibility Allowance £1,416

Reference: D. Dumfries High School

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SCOTTISH APPOINTMENTS

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DUMFRIES REGIONAL COUNCIL

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SCOTTISH APPOINTMENTS

Appointments in Scotland

Other than by Subject Classification

DUMFRIES REGIONAL COUNCIL

Other Appointments

AVON COUNTY
EDUCATION SERVICE
HURNELL TECHNICAL COLLEGE
(trial)
Principal: F. J. Hawley, M.Sc.
REPAIRMENT OF TOOD AND
LASHION
The work is challenging
The location is attractive
The facilities are good
The position is
FACTORY, Grade II, in HORN
THE ADMINISTRATION AND
ACCOMMODATION. MANA-CH
Applicants should have 48rs

Industrial experience and qualifications; the person appointed is required to graduate and develop the student and teach in the courses which include VETICMA and NLEMS.

Salary Scale: \$2,224 to \$2,434.

Under review.

Further details and application forms may be received by July 1, 1980, from Personnel Officer, Technical College, Auburn, Maine 04217. Questions: Post Reference Number 444.

**BERKSHIRE
COUNTY COUNCIL**
**READING COLLEGE OF
TECHNOLOGY**
**DEPARTMENT OF CIVIL,
MECHANICAL AND
PRODUCTION ENGINEERING**
Required as from 1st September 1990, a LECTURER (Graduate) to teach the production and related studies in the COL 200 Mech.Engn. CIVIL STUDIES Course mainly

Amplification should have relevant industrial and technical experience, a sound industrial chemical engineering background, and a proven ability to direct and lead in the organization and day to day running of a varied and busy research and development workload.

BIRMINGHAM

**BOWENVILLE COLLEGE OF
FURTHER EDUCATION**
Hurst Road South,
Birmingham B31 2AJ
Tel.: 021-476 0211

**LECTURER 1 in CATHOLIC
TWO Preparation** require
from September 1980 - ten day
any con.

Applications are invited

from persons with recognized professional qualifications and good trade experience in the food preparation and related subjects.
Salary Scale: \$3,777 to \$9,808 under review.
Application forms and further details obtainable from the Principal.

BIRMINGHAM
MATTHEW HOLLTON

TECHNICAL COLLEGE
Buckport River
Orrington ME 57011
Telephone: 621-646 2nd
LECTURER 1 to teach
ELECTRONICS and related subjects
mainly to students from
local area. Salary \$1000
per month September 1, 1980
Salary: \$2,777 to \$5.
(under review).
Application forms and
other particulars can be
obtained from the Principal.

BURY
(Metropolitan Borough of)
BURY METROPOLITAN
COLLEGE OF FURTHER
EDUCATION
Market Street, Bury and
Whitaker Street, Huddersfield
DEPARTMENT OF CATHOLIC
AND COMMUNITY STUDIES
AND SCHOOLS IN FOUR

PREPARATION

Required for September 1950. Applicants should possess certain qualifications: a minimum commercial experience, previous teaching training, experience and qualifications are desirable.

The post offers an opportunity for a new entrant to teaching to join a development department.

Salary - Lecturer Grade
As 777, 14, 24, 30.

Application forms
further particulars obtain
from and returnable to
Director of Education,
Education Department, Market
Duty BLD 02N (Tel. 01
0121; ext. 340) showing
for applications 17th
1990.

TORY SCHOOL
AT SUTTON
WIDSTONE, KENT
DEPARTMENT OF
HEAD

applications for a new Heald's association with Sutton (C.) nearby. Sutton Valence Schools in the United Kingdom. It is the intention of the Laboratory School in the Pound.

1981, and further information
 iver, Underhill Preparatory
 Street, London SW1E 5H
 5.
 completed application forms



Worthing College of Technology

Appointments of

Principal

Group VI

Principal required for January, 1981. The College, part of which will shortly move into new buildings, has seven departments. Candidates should be graduates with experience of senior responsibility in further education.

Form and details from Director of Education, County Hall, Chichester, West Sussex PO19 1RF, on receipt of foolscap stamped addressed envelope.

Closing date: July 25, 1980.

West Sussex County Council

EDUCATION COMMITTEE

Wigan College of Technology

PRINCIPAL

(GROUP 7)

Applications are invited for the post of Principal of this developing Tertiary College.

Further particulars and application forms are obtainable from the Director of Education (FE), Getway House, Slandishgate, Wigan WN1 1XL, to whom completed applications must be returned by July 21, 1980. A27

WIGAN

Metropolitan Borough

GLOUCESTERSHIRE

NSC, Ullenwood, Cheltenham

DEPUTY PRINCIPAL

Group V FE Scale

Versatile, dedicated and well-qualified Educationist needed—experience in Further Education and/or Special Education desirable—for recognized FE College for Physically Handicapped students, from January 1, 1981.

Further particulars and application forms from the Principal. Closing date July 18.

ST PATRICK'S COLLEGE

Drumcondra, Dublin 8
(Recognized College of the National University of Ireland)

LECTURER/ASSISTANT LECTURER IN HISTORY

Applications are invited for the above full-time permanent position, tenable from September 1, 1980.

Salary: Lecturer £7,694 to £10,363; Assistant Lecturer £6,880 to £9,564.

Applications, together with curriculum vitae and the names of three referees, should reach the Appointments Secretary, St Patrick's College, Drumcondra, Dublin 8, Ireland, not later than Friday, July 11, 1980.

ilea colleges

CITY AND EAST LONDON COLLEGE
Pillfield Street, N1 6BX

Head of Department of Applied Social Studies and General Education (Grade IV)

Applications are now invited for the post of Lecturer in the Department of Applied Social Studies and General Education (Grade IV).

The department is comprised of two main sections: Social Studies and General Education. The Social Studies section is responsible for the teaching of Social Studies, History, Geography, and Economics. The General Education section is responsible for the teaching of English, Mathematics, and Science.

Applicants should have a degree in a relevant subject and a minimum of three years' experience in teaching at the tertiary level. They should also have a good knowledge of the curriculum and a commitment to the development of the department.

Further details and application forms are available from the Principal, City and East London College, Pillfield Street, N1 6BX.

Closing date: July 25, 1980.

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Surrey Education Committee

Brooklands Technical College

Heath Road, Weybridge, Surrey

DEPARTMENT OF FOOD AND HEALTH STUDIES

LECTURER I

Accommodation Services

to teach Accommodation Operations for OND and Catering and Institutional Operations/TEC, C&G 705, 'A' level Home Economics/Home Management, Reception Control desirable. Appropriate qualifications and experience.

Salary Scale: Lecturer I, £3,777 to £8,498, plus £177 per annum London Fringe Area Allowance.

Commencing salary dependent upon qualifications and experience.

Further details and application forms from the Principal, Brooklands Technical College, Heath Road, Weybridge, Surrey, on receipt of foolscap stamped addressed envelope.

Closing date: July 14, 1980.

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COLLEGE OF FURTHER EDUCATION

continued

CAMBRIDGESHIRE

Cambridge Technical College

DEPARTMENT OF BUSINESS

LECTURER I

Accommodation Services

to teach Accommodation Operations for OND and Catering and Institutional Operations/TEC, C&G 705, 'A' level Home Economics/Home Management, Reception Control desirable. Appropriate qualifications and experience.

Salary Scale: Lecturer I, £3,777 to £8,498, plus £177 per annum London Fringe Area Allowance.

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COLLEGE OF FURTHER EDUCATION

continued

CAMBRIDGESHIRE

Cambridge Technical College

DEPARTMENT OF BUSINESS

LECTURER I

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COLLEGE OF FURTHER EDUCATION

continued

CAMBRIDGESHIRE

Cambridge Technical College

DEPARTMENT OF BUSINESS

LECTURER I

Accommodation Services

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Family background: banyans; housing/education: allowances; education: 3 years; nationality: British.

Detailed applications: 12 copies with curriculum vitae and 3 letters of reference sent direct to Registrar, PHOSCA, Gungahne, Botswana by 31 July 1981.

Applicants resident in the UK should also send one copy by 31 July 1981 to the Director, 20, St. Paul's Church Lane, London W1P 0LL.

Successful candidates may be awarded from study grants.

ESSK
THE UNIVERSITY
PHYSICAL MEDICINE

A newly qualified person in political administration in Canada, Mr. J. M. M. Smith is sought to share the training and administration in Asia as well as in Canada. He is now in the U.S. Army, where he has been three years. He is interested in the person mentioned above and has a number of interesting questions. He is also a demanding intellectual, and his program is in an ideal time of development. He is in the field of recreation.

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MISCELLANEOUS

APPOINTMENTS continued

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TEACHER OF VIOLIN in the Music School, W.3. The position is for a full-time post in the Music School, W.3. The successful candidate will be responsible for the teaching of violin to pupils of all ages.

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TEACHER OF VIOLIN in the Cornwall Music School. The position is for a full-time post in the Cornwall Music School. The successful candidate will be responsible for the teaching of violin to pupils of all ages.

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TEACHER OF VIOLIN in the Courtlands Centre Music School. The position is for a full-time post in the Courtlands Centre Music School. The successful candidate will be responsible for the teaching of violin to pupils of all ages.

LONDON

NATIVITY

TEACHER OF VIOLIN in the Nativity Music School. The position is for a full-time post in the Nativity Music School. The successful candidate will be responsible for the teaching of violin to pupils of all ages.

SUNDERLAND

TEACHER OF VIOLIN in the Sunderland Music School. The position is for a full-time post in the Sunderland Music School. The successful candidate will be responsible for the teaching of violin to pupils of all ages.

HAMPSHIRE

SCHOOL GROUP

TEACHER OF VIOLIN in the Hampshire School Group Music School. The position is for a full-time post in the Hampshire School Group Music School. The successful candidate will be responsible for the teaching of violin to pupils of all ages.

LONDON, S.W.3

TEACHER OF VIOLIN in the London, S.W.3 Music School. The position is for a full-time post in the London, S.W.3 Music School. The successful candidate will be responsible for the teaching of violin to pupils of all ages.

LEEDS

TEACHER OF VIOLIN

TEACHER OF VIOLIN in the Leeds Music School. The position is for a full-time post in the Leeds Music School. The successful candidate will be responsible for the teaching of violin to pupils of all ages.

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EDUCATIONAL COURSES

"A" LEVEL BIOLOGY

TEACHER OF VIOLIN in the "A" Level Biology Course. The position is for a full-time post in the "A" Level Biology Course. The successful candidate will be responsible for the teaching of biology to pupils of all ages.

MINERVA OUTDOOR VENTURES

TEACHER OF VIOLIN in the Minerva Outdoor Ventures Course. The position is for a full-time post in the Minerva Outdoor Ventures Course. The successful candidate will be responsible for the teaching of outdoor activities to pupils of all ages.

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TEACHER OF VIOLIN

TEACHER OF VIOLIN in the Graduate Music School. The position is for a full-time post in the Graduate Music School. The successful candidate will be responsible for the teaching of violin to pupils of all ages.

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TEACHER OF VIOLIN in the British Museum Exhibition Course. The position is for a full-time post in the British Museum Exhibition Course. The successful candidate will be responsible for the teaching of exhibitions to pupils of all ages.

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